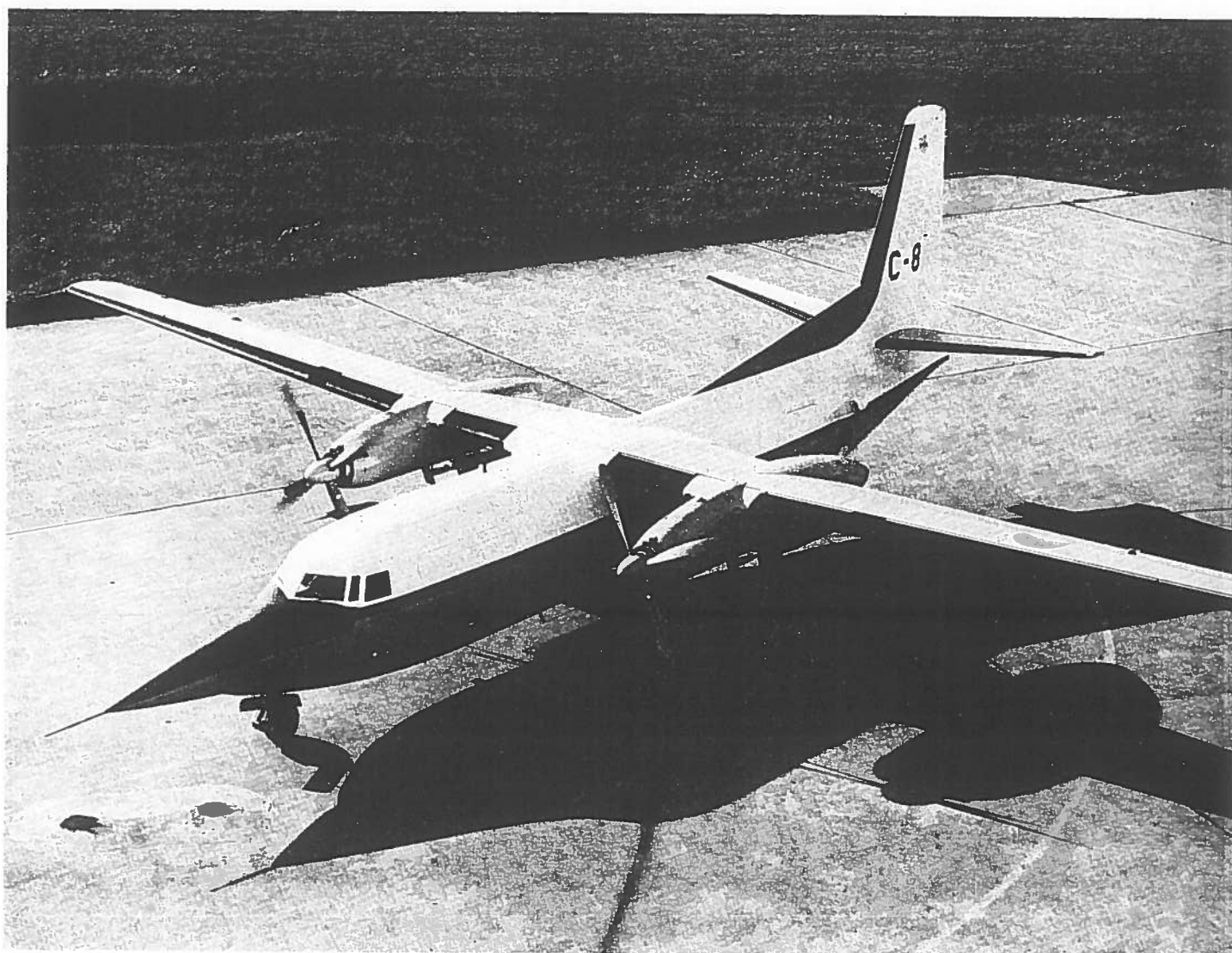


# **small air forces observer**

US \$1.50



**vol 3 no 4** (12)

**April 1979**

# small air forces observer

the newsletter of the Small Air Forces Clearing House

**COVER COMMENTS:** Our front cover this issue features the Royal Netherlands Air Force Fokker Friendship, code C-8, with the F-105G NASARR radar installation. At the time of this photo the Flipper badge had not yet been applied. This a/c was described by Fred Bachofner in SAFO #3 and additional information on the RNethAF Friendships is found in this present issue. (Fokker-VWF)

**TAIL PIECE:** The drawing of the Camberra, that occupies our back cover this issue, is the work of SAFCH member Wyn Edwards. While not strictly a small-air-forces subject, I hope that our readers will appreciate an occasional drawing of an unique a/c from some of the not-so-small air forces.

**FINANCIAL STATEMENT:** With 294 members receiving issues #9 and #10, income was \$588.00. Printing #9 and #10 cost \$159.59 + \$177.85 = \$337.44 and mailing cost \$107.86 + \$ 50.96 = \$158.82 for a total outgo of \$337.44 + \$ 158.82 = \$496.26. This gives a surplus \$588.00 - \$496.26 = \$91.74. Money not directly connected with Vol. 3 include the outgo of \$120.00 to obtain our 2nd Class Postal Permit, and income of \$163.98 from the sale of Vol. 2 back issues and the \$45.45 by which donations exceeded the Vol. 2 deficit. This leaves a total surplus of \$181.17 to be applied to the remaining issues of Vol. 3.

**BACK ISSUES:** New subscriptions will begin with all issues of the volume current at the time payment is received. Back issues from earlier volumes can be obtained for \$1.00 per issue, postage included. Xerox copies of out-of-print issues are available at cost. For a list of available back issues and cost of copies, send two 1st class stamps or two IRCs to the editorial office.

**SAFO EDITORIAL POLICY:** The purpose of the SAFCH is to "promote interest in the history and modeling of the aircraft of the smaller countries of the world". In support of this goal, the SAFO will publish articles on all aspects of aviation (both military and civil) from all periods of time and for all the smaller countries. To insure that the SAFCH remains a "member oriented" organization, the following guidelines have been adopted: (1) All manuscripts submitted by members will be published in the next available issue of the SAFO. (2) Subscription money will be used only to print and mail the SAFO; there will be no "miscellaneous" column in our budget. And, (3) members are encouraged to sponsor SAFCH memberships for individuals, organizations, and libraries (especially those in countries where US funds are difficult to obtain).

**SUBSCRIPTION RATE:** Subscription to the SAFO is US \$4.00 for 4 issues per year. Send remittance to Jim Sanders, 27965 Berwick Dr., Carmel, CA 93923, USA.

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Second-class postage paid at Carmel Valley, CA 93924, USA.

**EDITORIAL:** I hope that you have noted the momentous event associated with the publication of issue #11. For the first time in its four year history, the SAFO was mailed to the members in the month of its cover date. In addition, with the last two issues being published in October and January, we are firmly on our quarterly publishing schedule. If the gods and the printer are kind, the present issue should be mailed to you in April.

This issue marks the end of Vol. 3, and you will find a renewal form for Vol. 4 enclosed. In these days of inflation, you are probably surprised to see the subscription remain at \$4.00. This doesn't mean that the cost of producing the SAFO hasn't increased. In fact, printing issue #11 cost \$270 compared to \$160 for issue #9. However, this increase was balanced by the money saved by going to a 2nd-class mailing. A full accounting for Vol. 3 will not be available until after the present issue is mailed, but at this time it looks as if we will finish Vol. 3 with a healthy balance to be carried over into Vol. 4. (As I discussed with some of you, I had hoped to publish an extra issue in Vol. 3 at no extra cost to the subscribers. However, the increase in printing costs eliminated the money we would have saved on issues #11 and #12, so this is no longer possible.)

You'll find the renewal form self explanatory except for line 6. Your subscription money is used only for printing and mailing the SAFO. All "editorial" expenses are born by the editor. These expenses include the cost of all correspondence, returning manuscripts and photos to the authors, typewriter ribbons (and correction fluid), rubber cement and other materials for paste-up of the manuscripts, rub-on letters for titles, printing promotional sheets, sending reminders to those of you who forget to renew, and many other things. I do not believe that these expenses should be added to your subscription cost, but I sure would appreciate if those of you who are enthusiastic about the SAFCH would share these expenses by donating a dollar or two. If these donations are more than I use, the surplus will go into our sponsorship program.

If you do not now sponsor a foreign member, your local library or aviation museum, please give it some serious thought. If you don't have anyone in mind, I'll try to find someone in the country of your choice. (28 January 1979)

**SUOMEN ILMAVOIMIEN HISTORIA.** This excellent series of books on the a/c of the Finnish Air Force is now available from SAFCH member Borje Hielm. The issue presently available and their price in US\$ (including postage by surface mail from New York are:

Brewster B-239 \$11.50; Dornier 17Z & Junkers 88A \$11.50; Fokker D.XXI \$11.50; MS406 & Caudron 714 \$11.50; Curtiss Hawk & P-40 \$11.50; Messerschmitt 190G \$12.50; Soviet Fighters \$12.50; Fiat G.50 \$12.50; Finnish Air Force Aircraft 1918-38 \$11.50; Finnish Air Force Fighters 1939-72 \$11.50.

Send orders to Borje Hielm, Bergsidan 4, 02160 Westend, FINLAND.

**SUOMEN LENNOKKI DECALS.** This excellent series of decals for Finnish a/c were reviewed in SAFO #9 and are now available to SAFCH members at a 20% discount. The only catch is that we must order a minimum of 10 at a time. Send your order and payment to the SAFCH editorial office and I'll send group orders to Finland at appropriate intervals. The discount prices for these decals are: Nos. 1-2 \$0.92; 6-7 \$1.08; 13-14 \$1.24; 15-26 & 29-33 \$2.25; 27-28 \$2.72. All these decals are described in SAFO #9 except 32 and 33 (FAF National marking - grey 1/72). Please include 15¢ per decal for postage from California.

SAFCH RESEARCH PROJECTS: Two new Research Projects have been initiated since the last listing:  
 RP #8 - AIRCRAFT OF THE CENTRAL AMERICAN REPUBLICS. Gary Kuhn, 1801 1/2 Ferry St., La Crosse, WI 54601, USA. "During January-March 1980, I will be in the Central American republics of Guatemala, El Salvador, Honduras, Nicaragua, and Costa Rica. At that time I intend to collect information for publication in the SAFO on both civil and military aviation in this area. To make to most effective use of my time there, I need to collect as much background information as possible before departure. Therefore, I would appreciate corresponding with anyone knowledgeable in this subject. Extremely useful would be the names and addresses of persons whom I can contact while in these countries." RP #9 - SOVIET AIRCRAFT IN FOREIGN SERVICE. Ned Barnett, 3501 Hill Springs, Lexington, SC 29072, USA.

## SOVIET AIRCRAFT IN FOREIGN SERVICE

### Progress Report #1

Soviet military aircraft have become a major factor in the airforces of many countries throughout the world. Although these aircraft frequently have crude (by so-called Western Standards) equipment and have engines with incredibly poor TBOs (time between overhaul), and although Soviet "strings" are nearly unbreakable, the price is right. (Two countries, Indonesia and Egypt, found the strings too tight, and 'cut' them - opting for more expensive but 'free' Western arms. In a 'fruit-basket turnover' Somalia has also rejected Soviet arms for Western while neighboring 'pro-Western' Ethiopia has accepted Soviet arms eagerly.) Furthermore, the late unpleasantness in South East Asia demonstrated that even the ancient MiG 17 was formidable in a transonic dogfight. With all their problems, the Soviet export aircraft are as good in their specialized roles as their more generalized Western counterparts.

This first part of Soviet Aircraft in Foreign Service will attempt to identify initial users of Soviet aircraft still in use. Later parts will attempt to identify second- and third-generation users; and markings/color schemes will be illustrated with appropriate footnotes. Assistance and/or corrections will be appreciated.

MiG 17. The MiG 17 was ordered by the following nations: Afghanistan, Albania, Algeria, Bulgaria, China (PRC), Cuba, Egypt, Germany (DRG), Guinea, Hungary, Indonesia, Iraq, Khmer, (North) Korea, Nigeria, Poland, Romania, Somalia, Sri Lanka, Syria, Syria, (North) Vietnam, Yemen. This aircraft was also produced (without license) by China (PRC).

MiG 19. The MiG 19 has been ordered by the following nations: Albania, Bulgaria, China (PRC), Cuba, Czechoslovakia, Egypt, Germany (DRG), Indonesia, Iraq, Pakistan, Romania, Yugoslavia. This aircraft was also produced for export (without license) by China (PRC).

MiG 21. This aircraft has been produced for service in the following countries: Afghanistan, Algeria, Bangladesh, Bulgaria, China (PRC), Cuba, Czechoslovakia, Egypt, Finland, Germany (DRG), Hungary, India, Indonesia, Iraq, (North) Korea, Pakistan, Poland, Romania, Somalia, Syria, (North) Vietnam, (South) Yemen, Yugoslavia. This aircraft is built (without license) for export by China (PRC).

MiG 23. Recent reports indicate that MiG 23s have been sent to the Mid-East for service with: Egypt, Libya, Syria. It is unclear whether these were actually issued to these air forces. In late 1978, indicated that MiG 23s with TAC?NUKE capabilities have appeared in Cuba.

Mi-4. This versatile helicopter has been ordered for use by the following countries: Afghanistan, Albania, Algeria, Bulgaria, China (PRC), Cuba, Czechoslovakia, Egypt, Finland, Germany (DRG), Hungary, India, Indonesia, Iraq, Khmer, (North) Korea, Mali, Mongolia, Poland, Romania, Sudan, Syria, (North) Vietnam, Yemen, Yugoslavia.

Mi-6. This large assault and transport helicopter has been ordered by the air forces of: Bulgaria, Egypt, Indonesia, (North) Vietnam.

Mi-1/Mi-3. This light general-use helicopter has been ordered by: Afghanistan, Albania, Algeria, Bulgaria, China (PRC), Cuba, Czechoslovakia, Egypt, Finland, Hungary, Iraq, (North) Korea, Mongolia, Poland, Syria, Yemen.

Mi-8. This medium helicopter was ordered for service by: Bulgaria, Czechoslovakia, Egypt, Ethiopia, Germany (DRG), Hungary, India, Iraq, Pakistan, Peru, Poland, Sudan, Syria.

WSK SWIDNIK. A Polish-built Mi-2 light general purpose helicopter was developed to replace the Mi-1/Mi-3 series. The Soviet Union distributed this helicopter widely through the Warsaw Pact, but details are unknown at this time.

Su 7B. This specialized ground-attack fighter has been ordered for service by: Cuba, Czechoslovakia, Egypt, Germany (DRG), Hungary, India, Poland, (North) Vietnam.

Su 11. This interceptor has been seen in Egyptian markings.

Tu 16. This long-range medium bomber has been ordered for service by: Egypt, Indonesia, Iraq.

Tu 124. This transport/airline version of the Tu 16 is in civil or military use in: Czechoslovakia, Germany (DRG), India, Iraq.

Il 28. This vintage bomber is still a significant aircraft and a real threat in many parts of the world. It was ordered by: Afghanistan, Algeria, China (PRC), Czechoslovakia, Egypt, Finland, Germany (DRG), Hungary, Indonesia, Iraq, (North) Korea, Morocco, Nigeria, Poland, Syria, (North) Vietnam, Yemen.

Tu 154. This medium jet airliner is in service in: Bulgaria, Czechoslovakia, Egypt.

Aero L-29 Delfin. This aircraft is of Czech origin and manufacture; but, two-thirds of the 3000 aircraft produced by 1974 were supplied to the Soviets for use throughout the Warsaw Pact. In addition to Soviet use, aircraft were supplied to: Bulgaria, Czechoslovakia, Egypt, Germany (DRG), Indonesia, Nigeria, Syria, Uganda.

Aero L-39. This aircraft was reportedly not accepted for Soviet use, but Czechoslovak and Iraqi service has been reported.

An 12. This Soviet 'Hercules' has been ordered by: Algeria, Egypt, India, Indonesia, Iraq, Poland. Commercial service in: Bulgaria, Cuba, Ghana, Poland.

An 14. This light transport has been reported to have been ordered by: Germany (DRG), Guinea. Commercial service in: Bulgaria.

An 24. This aircraft has been ordered by: Congo (Zaire), Czechoslovakia, Egypt, Hungary, (North) Korea, Mongolia, Romania, Somalia, (North) Vietnam. Commercial service in: Bulgaria, Congo (Zaire), Cuba, Egypt, Germany (DRG), Guinea, Iraq, Lebanon, Mali, Mongolia, Poland, Romania, Tanzania.

Il 14. This aircraft has been ordered by: Afghanistan, Albania, Algeria, Bulgaria, China (PRC), Cuba, Czechoslovakia, Egypt, Germany (DRG), Guinea, Hungary, India, Indonesia, Iraq, Khmer, (North) Korea, Mongolia, Poland, Romania, Syria, (North) Vietnam, Yemen, Yugoslavia.

Il 18. Countries ordering the Il 18 include: Afghanistan, Algeria, Bulgaria, China (PRC), Czechoslovakia, Guinea, Poland, Romania, Yugoslavia. Commercial service in: Afghanistan, Algeria, Bulgaria, China (PRC), Cuba, Czechoslovakia, Egypt, Germany (DRG), Ghana, Guinea, Mali, Mauritania, Poland, Romania, Yemen, Yugoslavia.

Yak 18. This tandem two-seat primary trainer was ordered by: Afghanistan, Albania, Bulgaria, China (PRC), Egypt, Germany (DRG), Hungary, (North) Korea, Mali, Mongolia.

MiG 15. Although clearly obsolete, the MiG 15 must still be reckoned with in parts of Africa and Asia. Countries ordering the MiG 15 include: Albania, Algeria, China (PRC), Cuba, Czechoslovakia, Egypt, Indonesia, (North) Korea, Mali, Mongolia, Poland, Romania, Somalia.

(Continued on page 109)

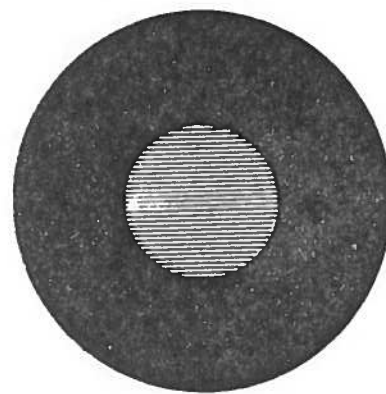
# ALBANIA



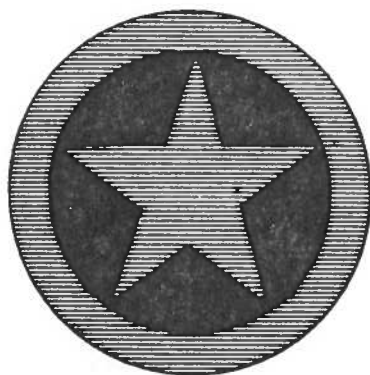
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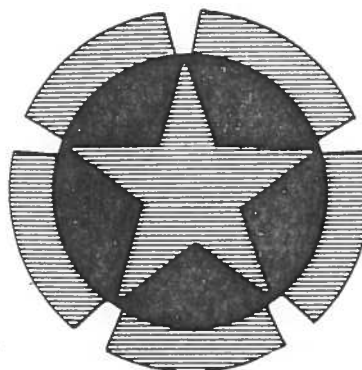
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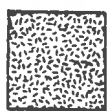
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d



e



BLACK



RED



YELLOW

# AIRCRAFT OF THE Albanian Air Force

Perched on the mountainous shores of the Adriatic Sea between Yugoslavia and Greece, Albania has remained an enigma throughout its long history. At no time was this more true than after WW II when Albania first retreated into the darkness behind the Iron Curtain and then closed its borders to even Eastern Europe to rely on the friendship of Communist China, a more distant and therefore less threatening friend. No one is more acutely aware of this secrecy than the small air forces enthusiast interested in the colors and markings of aircraft of the Albanian Air Force.

The number and types of aircraft used by the Albanians is apparently well known. For example, FLIGHT in its 1978 World's Air Forces Survey credits them with 24 F-2 (MiG-15), two squadrons of F-4 (MiG-17), 36 F-6 (MiG-19), nearly 20 F-7 (MiG-21), 3 Il-14, 10 An-2, nearly 30 Mi-4, some Yak-18, and some MiG-15UTI. (The 'F' designation refers to the Chinese-built versions of the MiG family.) But, photographic information has been rather scarce. Until recently, the only photo of an Albanian aircraft in the SAFCH files was that of an Il-14 that appeared in FLYING REVIEW Jan. '64.

Then, AVIATION & MARINE (issue unknown) published a photo of a group of Albanian pilots standing in front of a lineup of F-6 (MiG-19) and they had the bad taste to comment about 'Chinese copies'.

In the combined MODEL-AIRE INTERNATIONAL/SMALL AIR FORCES OBSERVER (MAI Vol. 2 No. 8/SAFO #5), Ted Koppel illustrated the variation in Albanian Air Force insignia since WW II and Tom Young illustrated the Albanian Il-14 from FLYING REVIEW. An update of this information provided by Fritz Braun and Philippe van Hay along with Tom Young's drawings of a MiG-19 and Il-14 appeared in MAI Vol. 2 No. 10.

Then in SAFO #11, Denis Maloney commented on the markings of Albanian MiG-17 as deduced from two color photos that had appeared in an Albanian magazine.

Now, thanks to the cooperative efforts of MAI and SAFCH, it is possible to reveal for the first time the markings and color schemes of all the combat aircraft used by the present-day Albanian Air Force.

Our Albanian correspondent writes, "There is no civil aviation in Albania (Shqipëria) today. The only sign of ALBTRANSPORT are the access stairs for aircraft. On the airfield Rinas situated between Triana and Durrës there are about half dozen Shenyang F-4 (MiG-19) and one Il-28. Shenyang F-4 (MiG-17) and F-7 (MiG-21), MiG-15, MiG-15UTI, and Mil Mi-4 helicopters are also on display, but not on airfields, but in numerous photos displayed in the streets, on walls, in factories, and in museums along with other photos designed to arouse patriotic fervor. From these sources it is possible to construct a rather complete picture of the markings and insignia used on aircraft of the Albanian Air Force since the end of WW II."

## INSIGNIA

Immediately after WW II, the Albanian Air Force operated Yak-3, Po-2, Yak-18, and Mi-2, but no photos are known of aircraft carrying the two-headed eagle national insignia in either the form illustrated in Green and Fricker's AIR FORCES OF THE WORLD (a) or Robertson's AIRCRAFT MARKINGS OF THE WORLD 1912-1967 (b). The earliest national insignia for which photographic evidence is available is the red and black roundel (c) carried by a MiG-15. This roundel is carried in four wing positions and there are no markings on the vertical fin (Fig. 1).

At some point in time, as yet undetermined, the national insignia was changed from the roundel to a red and black star-in-circle motif. Two variations of this insignia have been positively identified. In its simplest form (d), the red ring surrounding the star is

unbroken. The second version (e) has this red ring broken at each point of the star, probably to facilitate stencil application. A third version was suggested in MAI Vol. 2 No. 10, but all parties concerned now seem to agree that this was probably a misinterpretation of a Stencil-type insignia.

The star insignia is carried in four wing positions and on both sides of the vertical tail (Figs. 2 - 10).

The use of a fin flash has been reported in Robertson's book, but the only known photo of an Albanian aircraft carrying a fin flash or flag is that of the Il-14 mentioned earlier. Turning again to the comments of our man in Albania, "The flag is not a military marking but a civilian insignia. This flag is painted around the smoke stacks of all Albanian commercial ships. On the Il-14, it probably denotes VIPs or civilians on board. As a matter of fact, the flag does not appear on any Albanian military aircraft, even those with black and red roundels (editor's emphasis), except for that VIP Il-14."

## MARKINGS

All Albanian military aircraft for which information is available have individual aircraft numbers painted in large red digits, either plain or stenciled, on the forward part of the fuselage. These numbers seem to fall into two categories. In one category, the aircraft are identified by a simple two, three, or four digit number. All known examples of this type are: MiG-15 '14'; Il-28 '29' and '026'; MiG-15UTI '246'; MiG-17 '211', '215', '230', '234', & '241'; MiG-21 '0208'. It is tempting to assume that the two-digit code is from an earlier, simpler time since MiG-15 '14' also carries the early roundel. However, Il-28 '26' carries the star insignia; this may merely represent a transition period, or it may be proof that there is no time significance to the two-digit code. It is also tempting to see other patterns in these codes, but there is just not enough information to draw conclusions.

The second aircraft code system definitely identifies the type of aircraft as well as the individual aircraft. In this system, a one-digit number denoting the aircraft type is separated from a two-digit aircraft number by either a hyphen or a dot. All known examples of this type of code are: MiG-19 '3-30' through '3-35' and Mi-4 '6-59' through '6-65'.

## AIRCRAFT

The drawings accompanying this article are all based on either photos or personal observations and include one example of each aircraft-type and marking combination known. The documentation for the conclusions reached above are included in the captions accompanying each drawing. Note: All aircraft are natural metal unless otherwise noted.

1. MiG-15: Stenciled red '14'; red and black roundels. Photo seen at Berat.

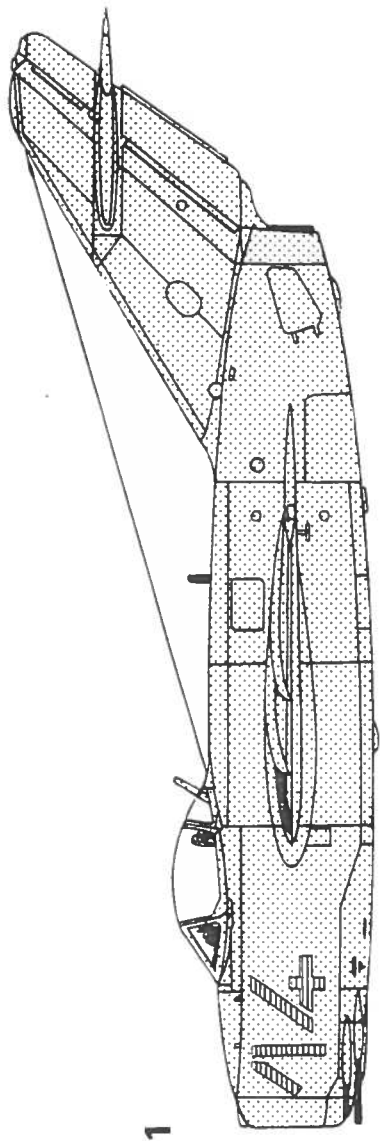
2. MiG-15UTI: Stenciled red '246'; stenciled star insignia. Photo seen near Parres.

3. Il-28: Stenciled red '29' on nose; stenciled star insignia. Photo seen in museum Shqipëria Sot (Albania Today).

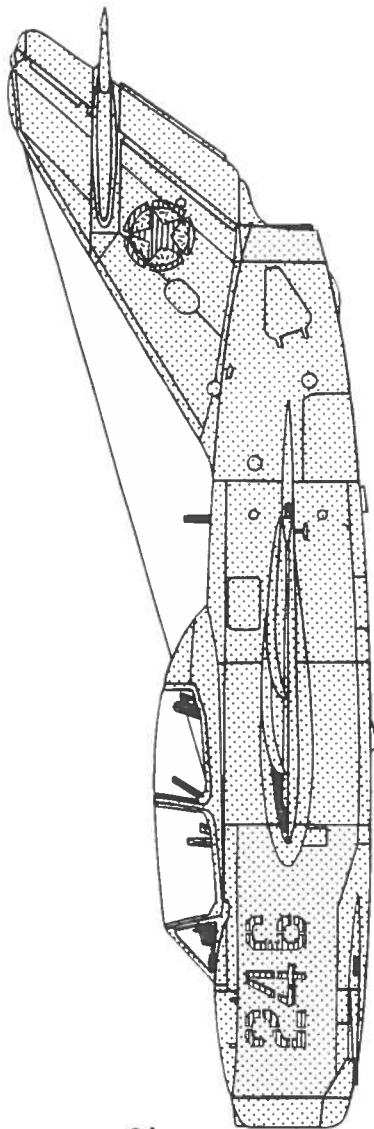
4. Il-28: Stenciled red '026' on engine nacelles; stenciled star insignia. Aircraft observed on airfield Rinas.

5. Shenyang F-4 (MiG-17): Stenciled red '241'; stenciled star insignia. Photo of this aircraft as well as of '211' and '230' seen in museum Shqipëria Sot. (Photos of '215' and '234' reported by Denis Maloney in SAFO #11.)

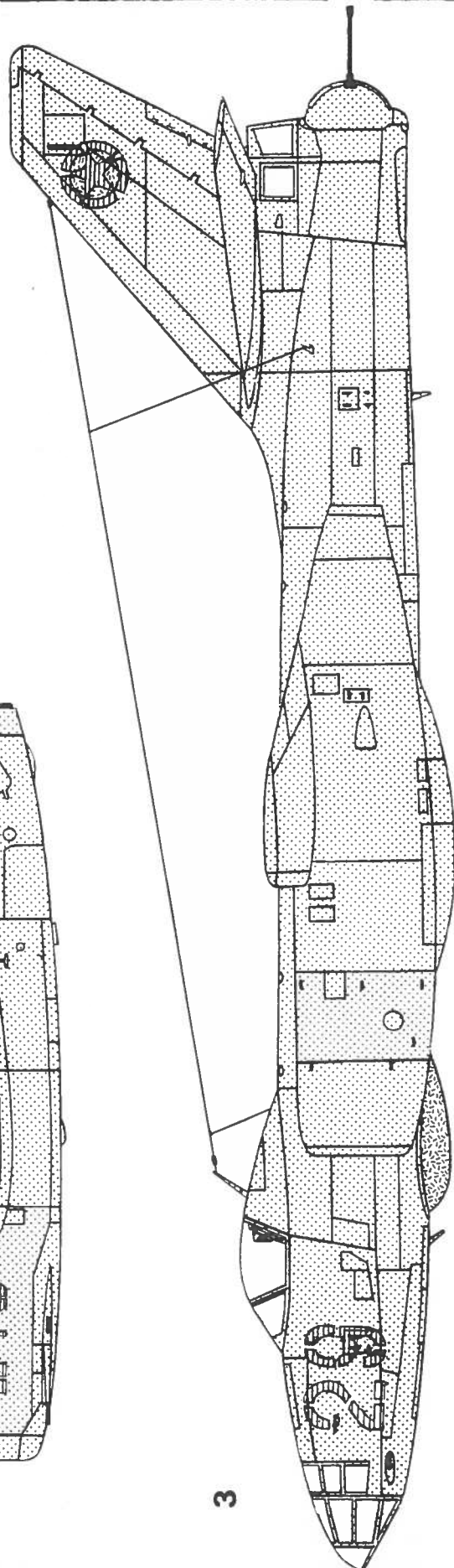
6. Shenyang F-6 (MiG-19): Plain red '3-35'; stenciled star insignia. Seen both on airfield Rinas and  
(Continued on page 108)



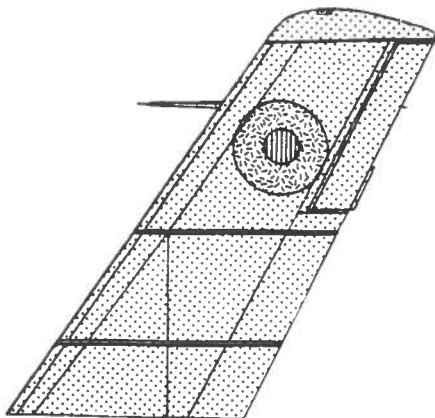
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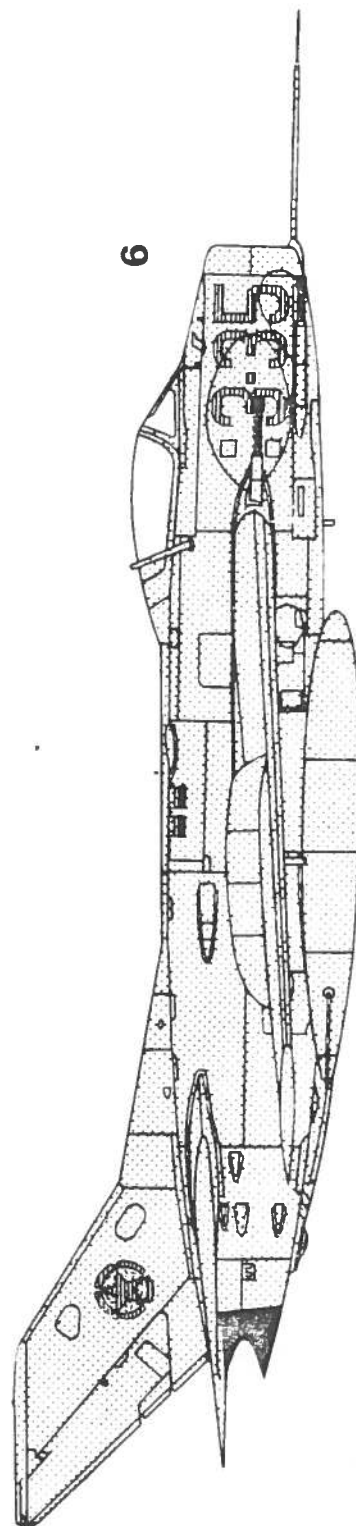
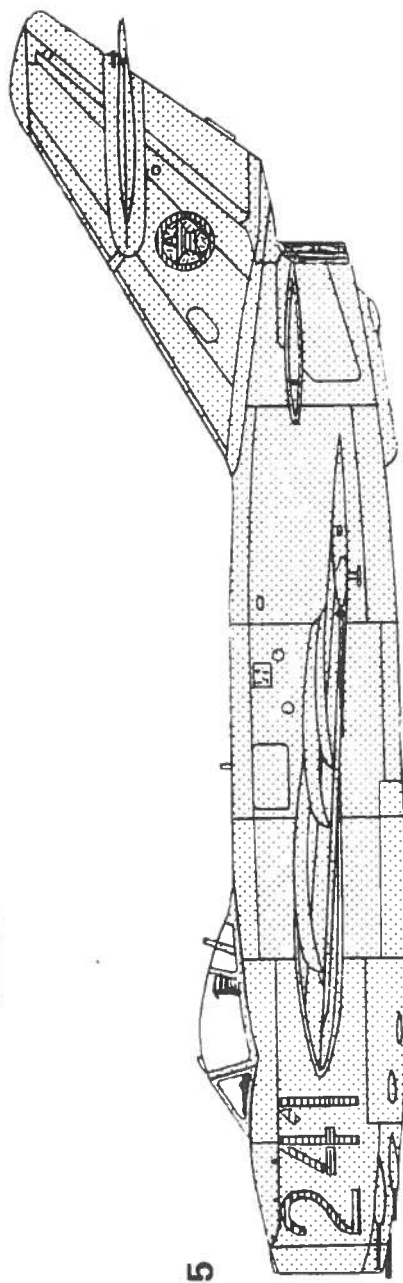
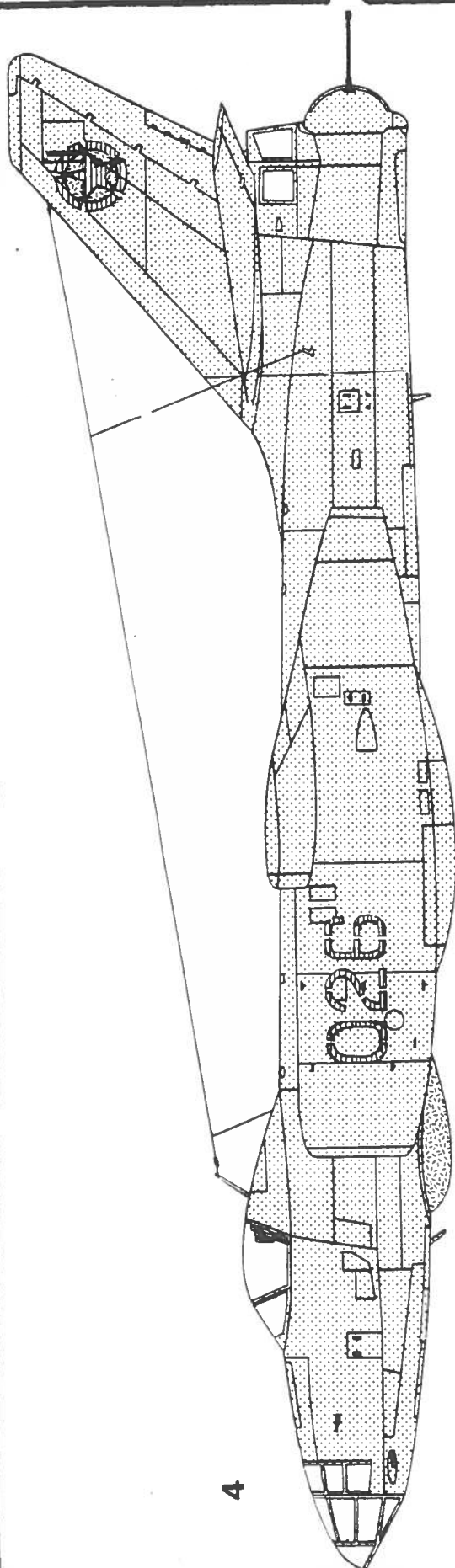
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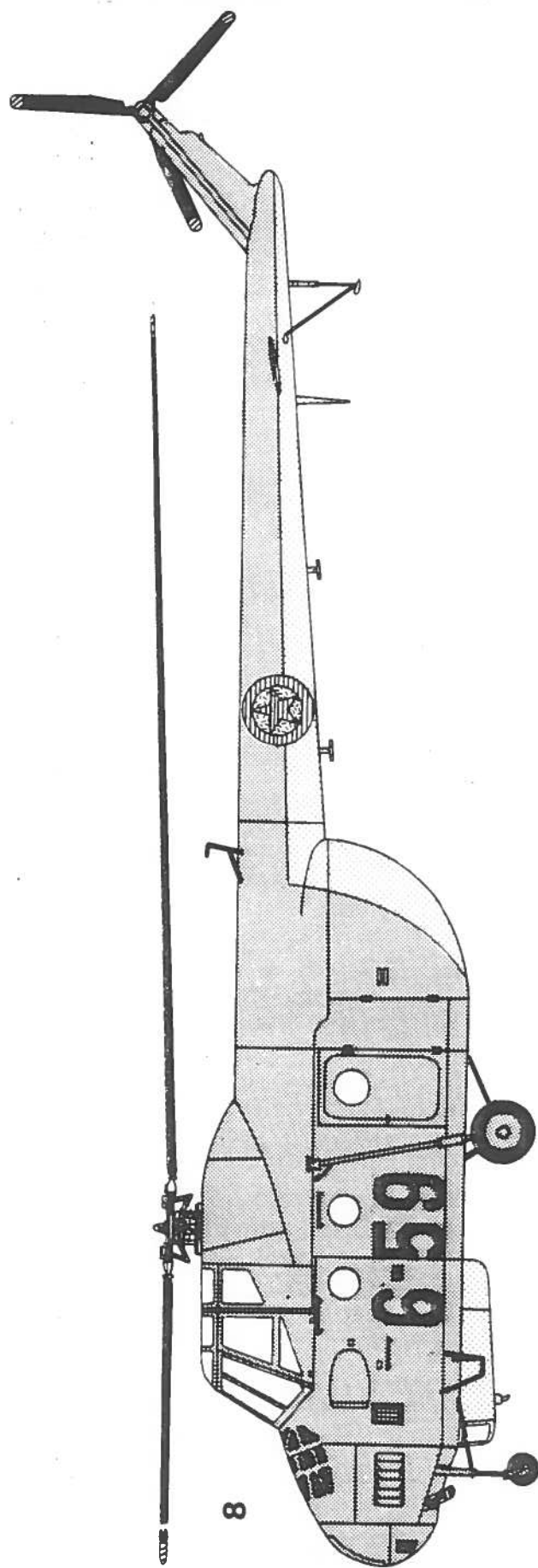
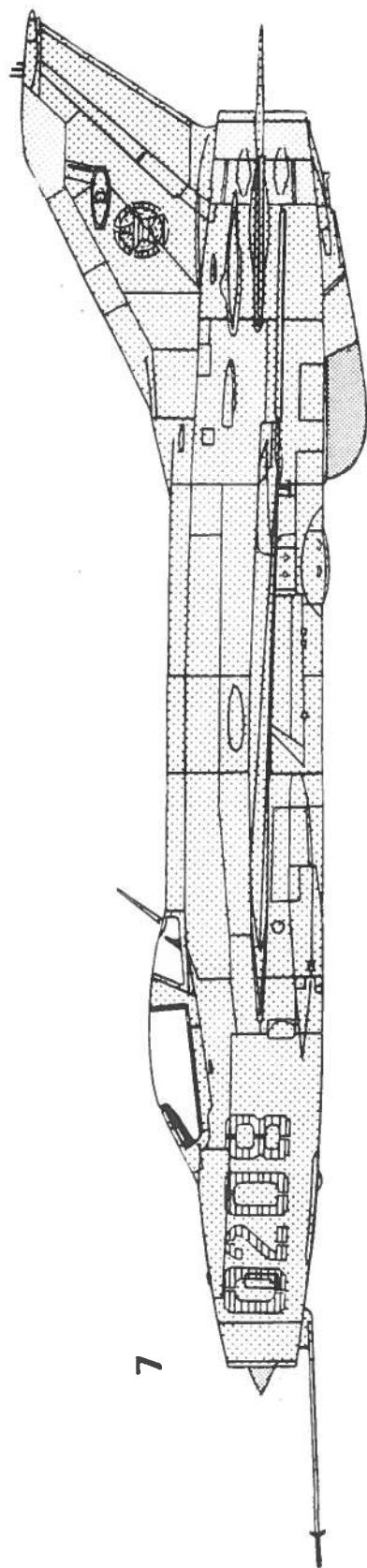


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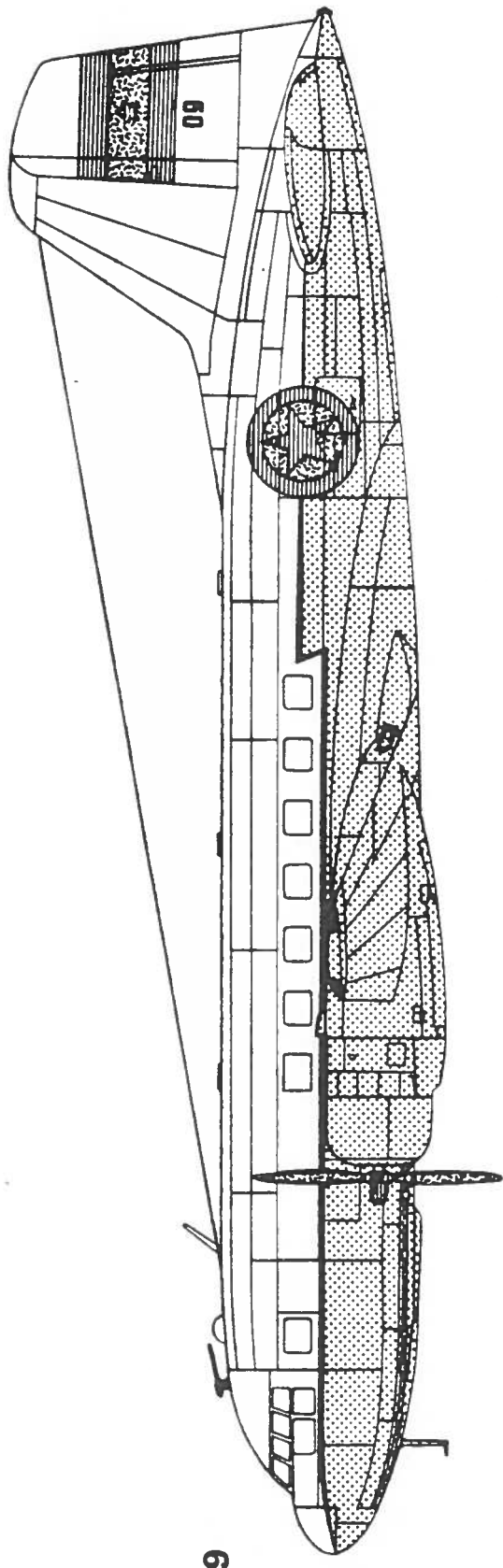




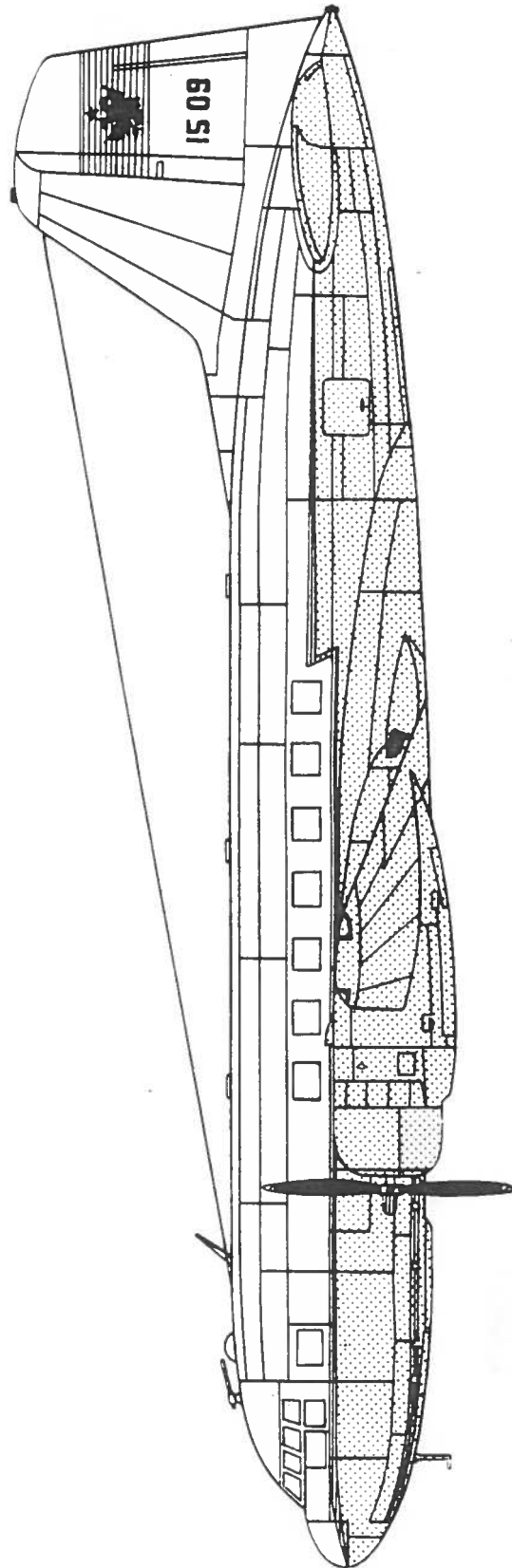








9



10

# AIRCRAFT OF THE ALBANIAN AIR FORCE

(Continued from page 103)

in photos at museum Shqiperia Sot. (Photo of '3-31' through '3-33' in AVIATION & MARINE.) Drawing of '3-35' first appeared in MAI Vol. 2 No. 10.

7. Shengang F-7 (MiG-21): Stenciled red '0208', stenciled star insignia. Seen at Shkadra (House of Officers).

8. Mil Mi-4: Plain white '6-59'; plain star insignia. Photo seen in museum Shqiperia Sot and in War Museum at Gjirokastor. (Also photos of '6-60' through '6-65'.)

9. Il-14: Plain yellow '09'; plain star insignia. White upper fuselage and tail, natural metal lower fuselage, wings, engines and horizontal stabilizer. Red prop spinners. Red cheat line. Color photo in FLYING REVIEW Jan. 1964. Drawing first appeared in MAI/SAFO combined issue.

10. Il-14: Yellow '1509'; no national insignia. Drawing first appeared in MAI Vol. 2 No. 10. Same aircraft as above. "Color scheme remains the same, but the national markings are gone and the fin flash has been replaced with the double-headed eagle and star on a red field. The number 09 in yellow has been replaced with the more complete 1509 in yellow (full aircraft c/n is 147001509). This aircraft is now a government fleet aircraft rather than in Albanian Air Force service."

8. Mil Mi-4: Plain white '6-59'; plain star insignia. Aircraft dark green top surfaces and pale blue lower surfaces. The colors are the same as used by helicopters in Czechoslovakia. Photo seen in museum Shqiperia Sot and in War Museum at Gjirokastor. (Also photos of '6-60' through '6-65'.)

Credits: The large-size national insignia were drawn by Ted Koppel and the aircraft were drawn by Tom Young. The Il-14 drawings first appeared in MODEL-AIRE INTERNATIONAL and are reproduced here with the kind permis-

sion of their editor, Tom Young. All other sources of information have been delineated in the text, but it should be made clear that any mistakes in the conclusions drawn from the information supplied by these sources is entirely the fault of the editor of this article, Jim Sanders.

Information Wanted: Included in this article is every bit of information about the aircraft of the Albanian Air Force known to the editors of MAI and SAFO. If anyone has anything to add to this account, we would greatly appreciate hearing from them. Of particular interest would be a confirmed color scheme for an Albanian Yak-3.

Incidentally, according to Robertson's book, the Bulgarian Air Force also used an unusual national insignia after the end of WW II before they adopted the red star insignia. This insignia consisted of a red disk with a white border divided by a vertical, white-bordered green bar. Any confirmed schemes of aircraft carrying this marking would be greatly appreciated.

The final word on aircraft in Albania comes from our Albanian correspondent. "In the War Museum at Gjirokastor, there is a USAF T-33 displayed in the open air. It is said to be a 'spy aircraft' that was forced down in Albania sometime in 1959. This aircraft, definitely a T-33 and not the RT-33 reconnaissance version, carries the serial number '14413' on the fin and the number '53-5152-A' on the left wing-tip fuel tank. A unit badge is carried on the fin (I don't remember which badge) and in front of the port intake there is a badge that consists of a yellow duck on a blue disk. The duck wears a red helmet and his feet are brown. The original cockpit canopy has been replaced by one made in Albania. Does anyone have information about this aircraft?"

abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts

## ASA NEWSLETTER

Oct 78 (24 pages). Photos: Noratlas C9-ARE; Twin Otter CR-CAX; Aztec 6V-AAX; Jet Ranger ZS-PAW; Sudan Air Force C-130H; Angola A/L Fokker F.27; Air Mauritius Boeing 707. "A History of Aviation in Zambia (Part 3 1939-52)", "Developments on Mauritius", "The War in Shaba - Additional Information", Insignia (15) Somalia.

Nov 78 (24 pages). Photos: Boeing 720 60-SAX; Auster 5 CN-TZC; Banderante G-BWTV; Aero Commander 690B ZS-JRC; Cameroon Air Force DHC-4; Islander 5Y-BBB; Boeing 737 Tunis Air. "A History of Aviation in Zambia (Part 4 1953-65)", "Lesotho Airways - Future Developments", Insignia (16) Cameroon.

## KIT

#28 (38 pages). "Couleurs et Teintes des Avions de la Force Aerienne Belge" (1 page, 4 color chips), "Helicoptere Puma' de la Gendarmerie" (1 page), "Classification des Avions de la Force Aerienne Belge - Periode 1954" (3 pages), "Marques se Nationalite et Immatriculations Utileseer pour les Avions de la Force Aerienne Belge" (4 pages).

## MODEL-CRAFT

Nothing received since #2/3 1977.

## MODELBOUW IN PLASTIC

Nothing received since #1 1978.

## O.F.H. NACHRICHTEN

#3 78 (42 pages). "Austrian Bu 133" (3 view & one photo), "Austrian Bu 181" (3 view & 6 photos), "Austrian SAAB B 17" (1 page text, 2 pages drawings), "Austrian Zlin C-104 (Bu 131)" (2 pages text, 1 3 view, 1 photo), "Hopfner Fluzzengban HV 15" (4 pages text, 2 pages drawings), "Die Fluzzzeuge der K.U.K. Armie 1914-1918" (4 pages text), K.U.K. Seifluzzzeug Type L" (2 pages text & 4 pages drawings). Photo of Austrian Airlines DC-3 OE-LBD.

## MALLARI

#27 (8 pages). Nothing of saf interest.

## LIMTAUBEN

Nothing received since #3 1977.

## RANDOM THOUGHTS

Nothing received since #3 1978.

## FLYVEHISTORISK TIDDSKRIFT

Nothing received since #2 1978.

## VIRUS PLASTICUS

#3 78 (44 pages). "Swiss Mirage IIIC J2201" (2 pages of drawings, 4 photos), "Swiss P-51B" (2 photos, "Swiss DC-4/C-54" (5 pages history of individual a/c, 1 page drawings).

#4 78 (44 pages). "Swiss Hunter T.Mk. 68" (2 pages drawings, 4 photos), drawings of Condor Legion Bf-109B and He-45C, "Swiss F-5" (1 page text), "Swiss Curtiss Condor" (4 pages text, 1 page drawings).

## MODEL-AIRE INTERNATIONAL

Nothing received since Vol. 2 No. 10.

## PRI FLY

#28 (12 pages). "Imperial Iranian Air Force Boeing 747" (drawing of 5-8102), "Norwegian F-5's" (1 page drawings G-DP, Y-MU, 110).

JP4, in Italian, 12 issues per year, 194 by 26 cm. Subscription L14.000 in Europe, L15.000 outside Europe: C.P. 1550, 50100 Firenze, ITALY.

May 78 (82 pages). "L'Ansaldo Sopwith" (4 pages including 5 photos and color 3 view of Italian-built Sopwith Baby), "Plastimodellismo - Fiat G.91" (4 pages including 3-view and two color side views). Photos: Mexico Islander TP-0207 (color); Peru A-37B; Brazil Magister T24-1723; Czech MiG-21 0912; Finland MiG-21. MG-92; Peru An-26; Nicaragua CASA C-212; Iran CH-47C; Korea F-51D (color); Italy F-104S 43-15; Ghana An-12 9G-AAZ and Il-18 9G-AAL; color poster of all current aircraft in service with the Italian Air Force.

Sept 78 (104 pages). "Marina Militare: Presente i Futuro" (22 pages, a/c and ships), "Plastimodellismo F-104G" (3 pages color side views Italy 4-11 and Dutch D-8331). Photos: Italy A.109 ElO-851 (color); Libya CH-47C LC-011; Iran SH-3D 9-2304 (color); Libya SF 260W; Comoro Islands SF 260W; Greece F-4E; Iraq L-39 Albattros; Jordan C-130; Tailand CL-215 1058 (color); Ger-

# Flying in Friendship

## PART 2

(Editor's note: The first part of this article by Fred Bachofner, our Dutch National Editor, appeared in SAFO #3. In this second part, Fred provides some supplementary information on the Dutch military F-27's as well as more drawings and details of interest to the modeler.)

Here is some additional information about C-12's flight to Dakar for the UNO in July 1972. The crew members were: Capt. Soons, 1st Sgt. Snoep, 1st Lt. Dales, Warrent Officers Aarts and Den Belder. The missions were mainly flown to West Mali and usually lasted 10 to 11 hours per day. While in Dakar, C-12 delivered about 480,000 pounds of food to starving tribesmen.

Additional information about C-7 in the Sudan: Flying time 371 hours; fuel used 272,000 liters; freight delivered 392,377 lbs; and passengers carried 292. Since the flight to and from the Sudan took 33 hours, the total time flown while in the Sudan was 338 hours. The average working day for the crew was 11 hours.

**MODELING THE RNethAF FRIENDSHIP:** As described in Part I, the RNethAF used three types of F-27's; one VIP Friendship (27 passengers), two Friendship Mk 100's, and nine Troopship Mk 300's. With only one model in 1/72 scale (AIRFIX) some conversion will be necessary.

The VIP version (C-1) can be built straight from the box. Pitot tubes should be added at both wing tips as well as the ailerons under the fuselage and from behind the cockpit to the vertical fin. (See Fig. 19.) Needed for all F-27 in Dutch service are the bulges behind the horizontal fin; these can be built up from body putty. (See Fig. 19.)

If any aircraft from C-2 onward is being built, it will be necessary to fill in the 9th window and to scribe the three large doors. Figure 17 shows the dimensions of the large cargo door on the port side of the nose (don't forget the smaller door inside), and Fig. 15 shows its correct placement. If you open this door and add some motor transport and figures you can have a diorama depicting a Friendship loading mail for the Dutch Army on exercise at La Courtine, France. Fig. 18 shows the dimensions of the rear parodoors which are on both sides of the a/c. When used for parachute dropping, six metal bars were attached to the air intakes on the rear fuselage to prevent the parachute cords from hanging up on the aircraft.

A simple, but attractive, conversion would be to produce C-8, the F-27 with the Starfighter nose. This a/c was used as a NASARR trainer for F-104G pilots. The only thing that has to be done is to affix the Starfighter nose from an AIRFIX kit (parts 36 & 37) and use some body putty to ensure a smooth junction with the cockpit section. (See Fig. 16.)

### DRAWINGS

1. Troopship C-4 took over UNO duties from C-7. It has the same color scheme of overall white. On the fin, the UN flag and the words UNITED NATIONS were applied a bit further from the registration number than on C-7.
2. The color scheme of C-7 after its return from Dakar. Only the roundel, registration number, and squadron badge were reapplied.
- 3 - 5. Camouflage scheme as presently applied to RNethAF F-27's. All lettering is black.
6. Squadron badge of No. 334 Sq. ("Semper et Ubique"); a white horse on a black/blue background.
7. RNethAF roundel (red, white, blue, & orange).
8. Color scheme of RNethAF F-27 propellers. Tips are white/dayglow/white.
9. The sawfish (in white) that appears on C-8.
10. "Fokker F-27" with crown as applied in black on top of both sides of the vertical fin of all a/c.
11. The Netherlands flag as carried on C-12 while in the Sudan. NETHERLANDS and the Arab equivalent below are both in black as is the name "Jan Willem Bertens".
12. The United Nations flag (white with blue background) as applied to both sides of the fin of C-2 and C-4.
13. Insignia of the United Nations High Commissioner for Refugees (light blue) as applied to nose and both sides of the vertical fin of C-7.
14. The United Nations insignia (blue) as applied to the nose of C-2 and C-4.
15. The Flipper insignia as carried on C-8, the F-27 with the Starfighter nose.
16. The nose of C-8 with the Starfighter radome. The color scheme is the same as given for C-8 in Part I.
17. The cargo door (dimensions in 1/72 scale).
18. The paradoor (dimensions in 1/72 scale).
19. Things to be aware of when modeling the RNethAF F-27.

Fred Bachofner SAFCH #15

### ABSTRACTS

(continued from page 108)

man Bo 105 82+99; Spain DC-8 401-01; Panavia Tornado P.05 (color); Italy Hughes NH 500 (color); India Alize; Sweden J.22 (1 color & 1 b&w).

**MILITARY AVIATION REVIEW**, in English, 6 issues per year, 21 by 30 cm. Subscription £8.40 by seamount, £12.00 by air mail: 16 Sleaford Rd., Cranwell, Sleaford, Lincolnshire, NG34 8BY ENGLAND.

June 78 (24 pages). "Dutch Air Force Meteors" (6 pages, 12 photos, individual a/c histories), "Danish Air Force Wrecks and Relics" (4 pages, 18 photos, list of all a/c). Photos: Belgium Pembroke RM-3; Morocco Mirage F.1; Spain C-47 744051; Mexico DC-6 ETP-10018; Peru Iroquois FAP 603.

Nov 78 (28 pages). "Look Back No. 1 - the Spitfire" (4 pages - list of preserved Spitfires in all countries, photos - 1 Belgium, 2 Dutch, many UK), "Norwegian Wrecks and Relics" (3 pages, list of all a/c, 14 photos), "The Neptune in Europe" (4 pages, photos - 2 Canadian, 3 RAF, 9 French, 4 Dutch, 1 Portuguese).

### SOVIET AIRCRAFT IN FOREIGN SERVICE

(Continued from page 101)

**MiG 15 UTI.** The MiG 15 was ordered by: Afghanistan, Albania, Algeria, Bulgaria, China (PRC), Cuba, Czechoslovakia, Egypt, Finland, Germany (DRG), Hungary, Indonesia, Iraq, Khmer, (North) Korea, Mali, Mongolia, Pakistan, Poland, Romania, Somalia, Sri Lanka, Syria, Uganda, (North) Vietnam.

**Il 62.** This long-range jet liner has been ordered by airlines in the following countries: China (PRC), Czechoslovakia, Egypt, Germany (DRG), Poland.

**Ka 26.** This utility helicopter has entered service with: Bulgaria, Germany (DRG), Hungary, Romania.

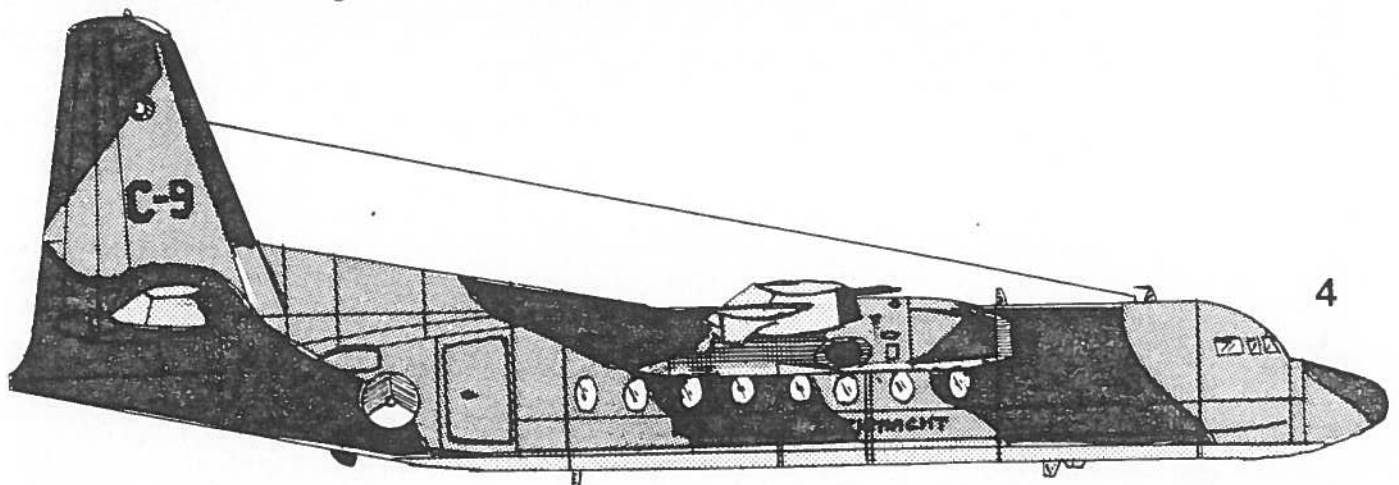
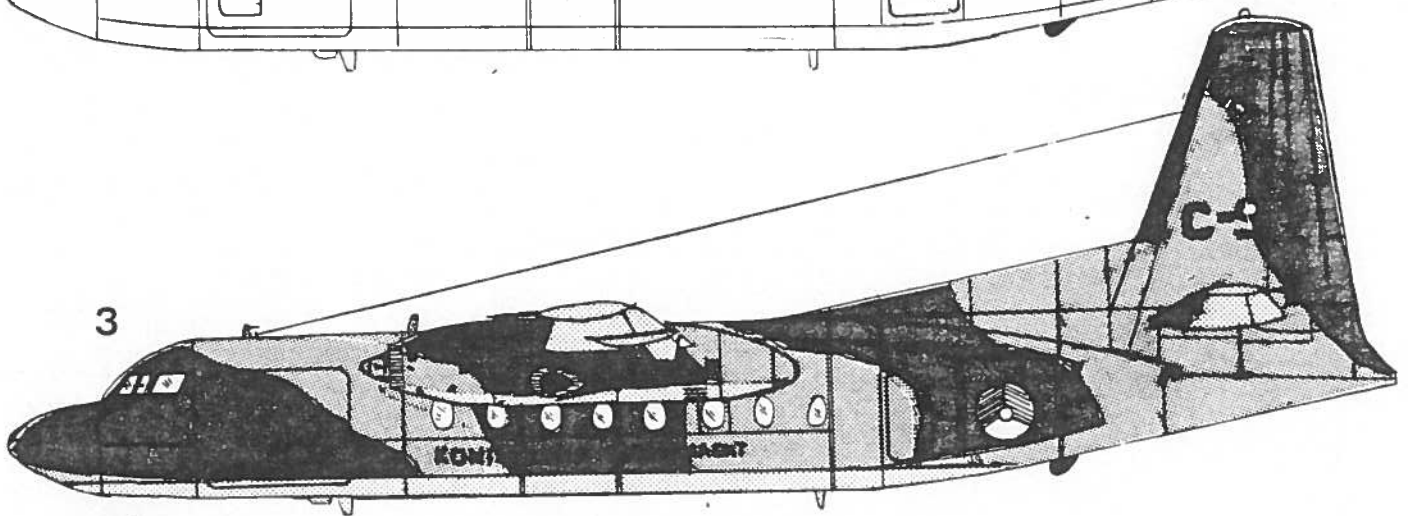
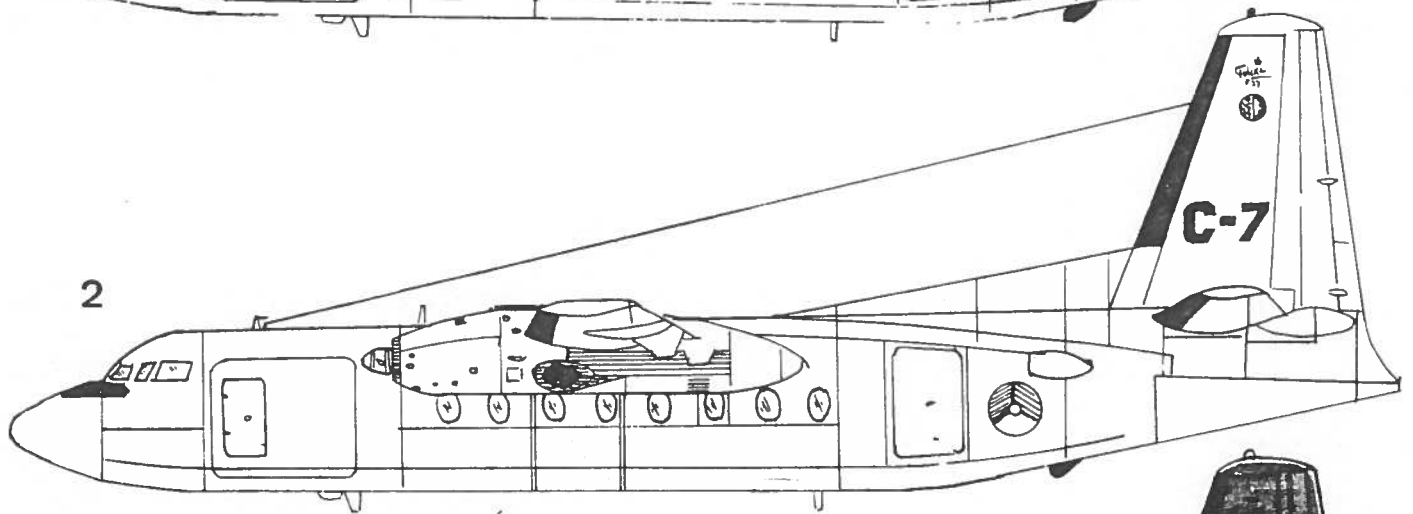
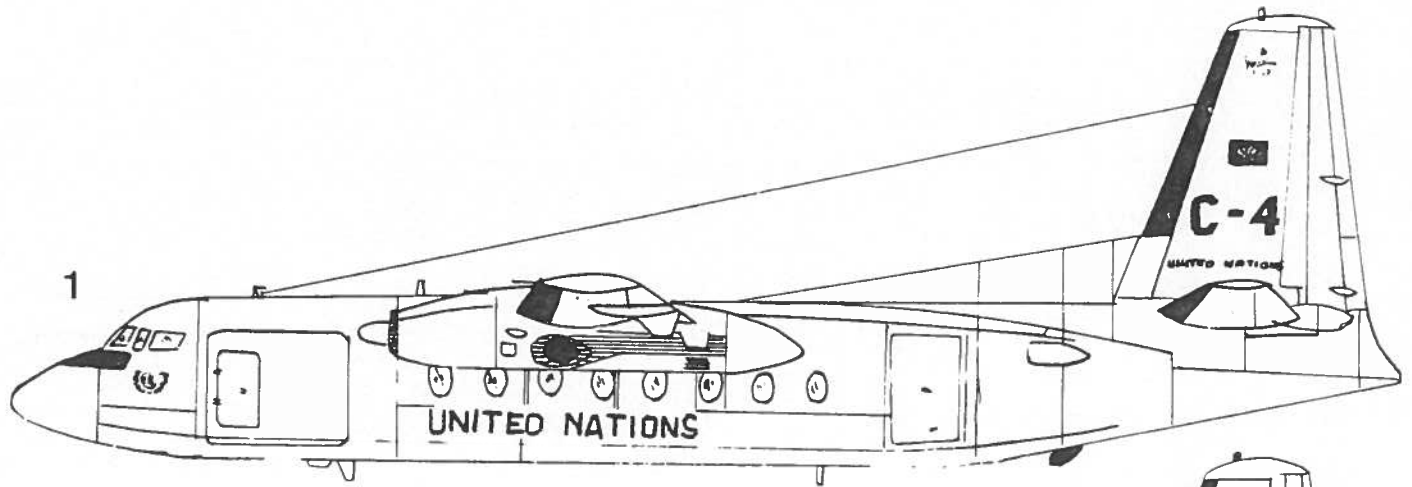
**An 2.** A biplane with no Western counterpart. This aircraft is still produced in Poland. In use or ordered by: Afghanistan, Cuba, Greece, India, Mali, Nepal, and by the entire Warsaw Pact, including: Bulgaria, Czechoslovakia, Germany (DRG), Hungary, (North) Korea, Poland, Romania, Yugoslavia.

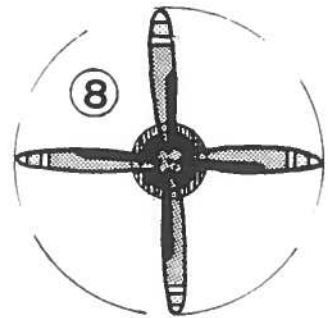
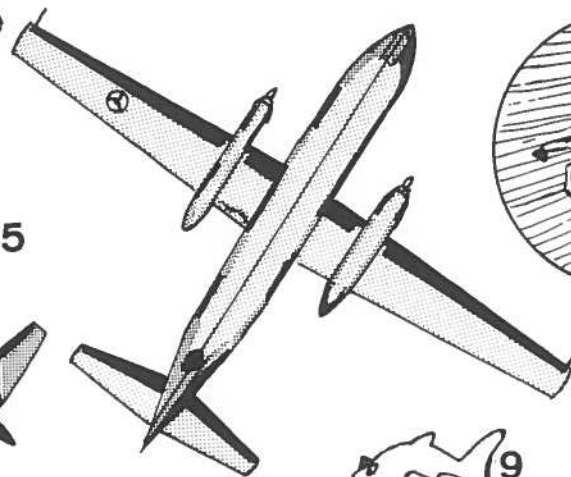
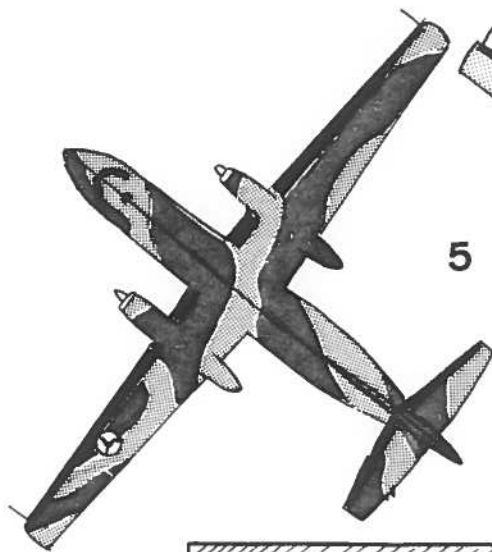
**Yak 40.** The Yak 40 has been ordered for civil or military use in: Afghanistan, Bulgaria, France, Germany (DRG), Italy, Poland, Yugoslavia.

Sources: JAMES' ALL THE WORLD'S AIRCRAFT 73/74.

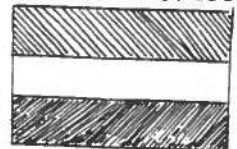
JAMES' POCKET BOOK OF MILITARY TRANSPORT & TRAINING AIRCRAFT 1974.

JAMES' POCKET BOOK OF MAJOR COMBAT AIRCRAFT 1973.

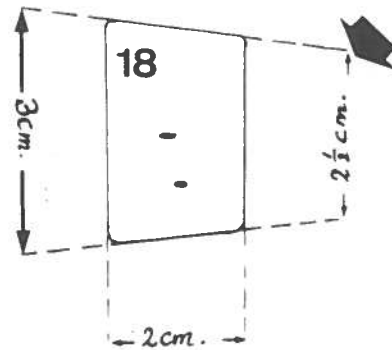
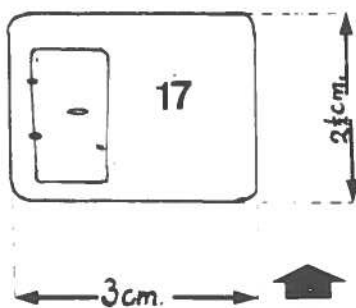
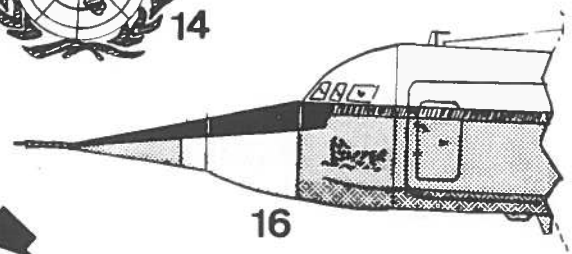
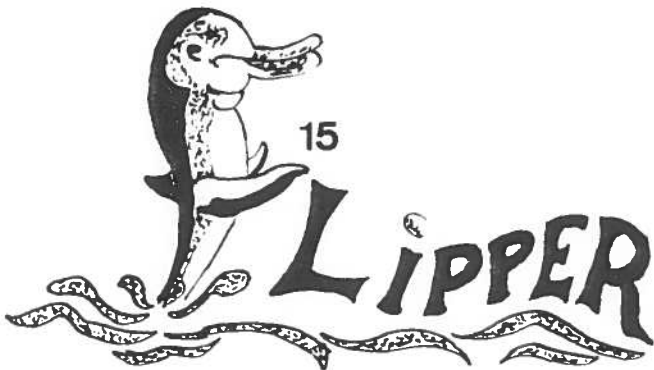




NETHERLANDS



JAN WILLEM BERTENS



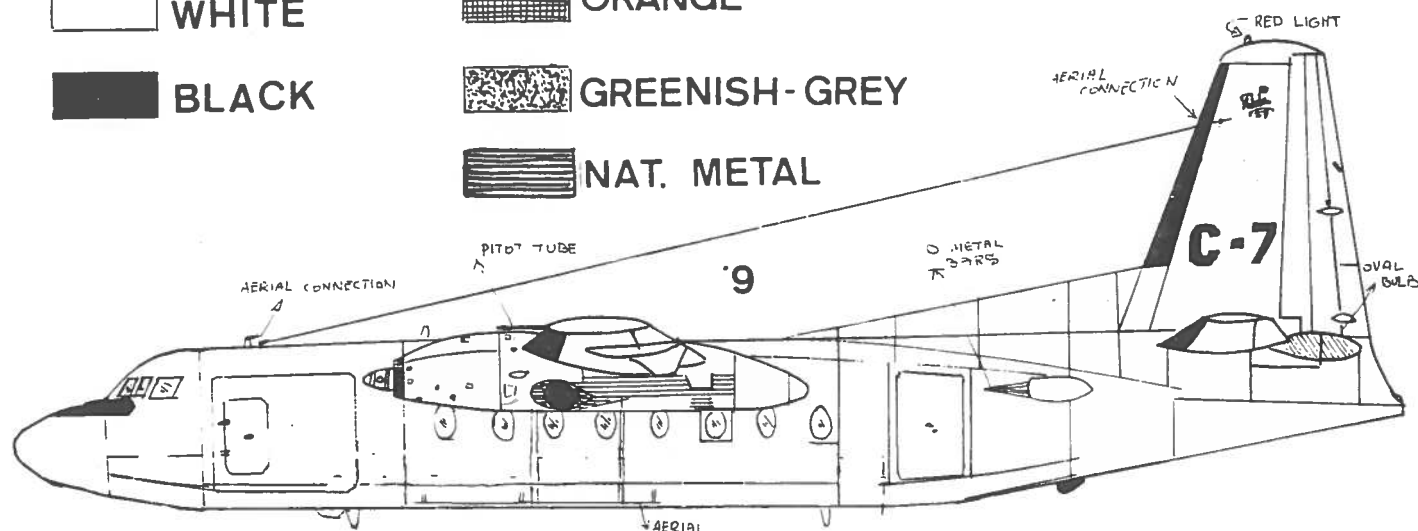
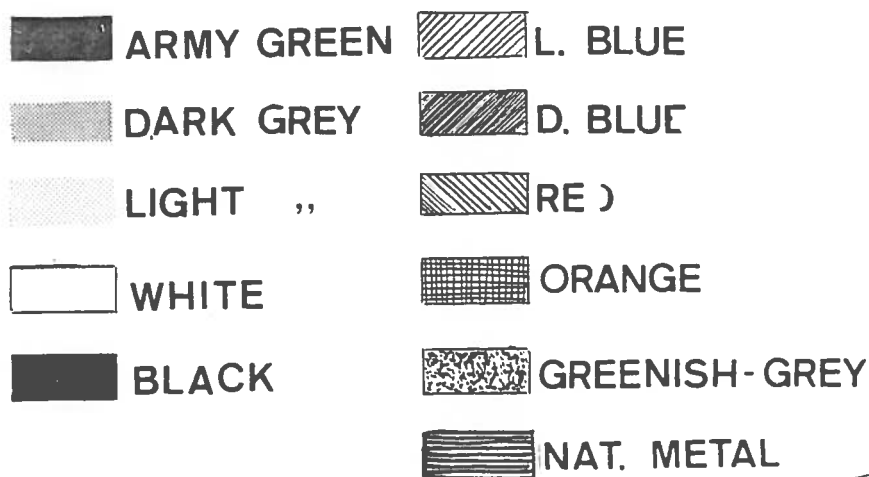
# KONINKLUKE LUCHTMACHT

## C-2,4,7,8,9

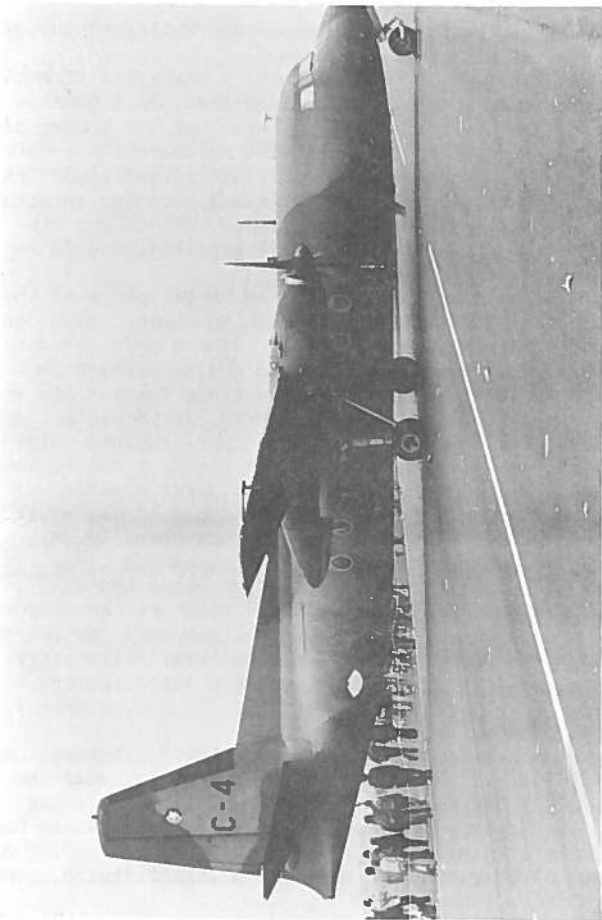
## UNITED NATIONS

## UNITED NATIONS

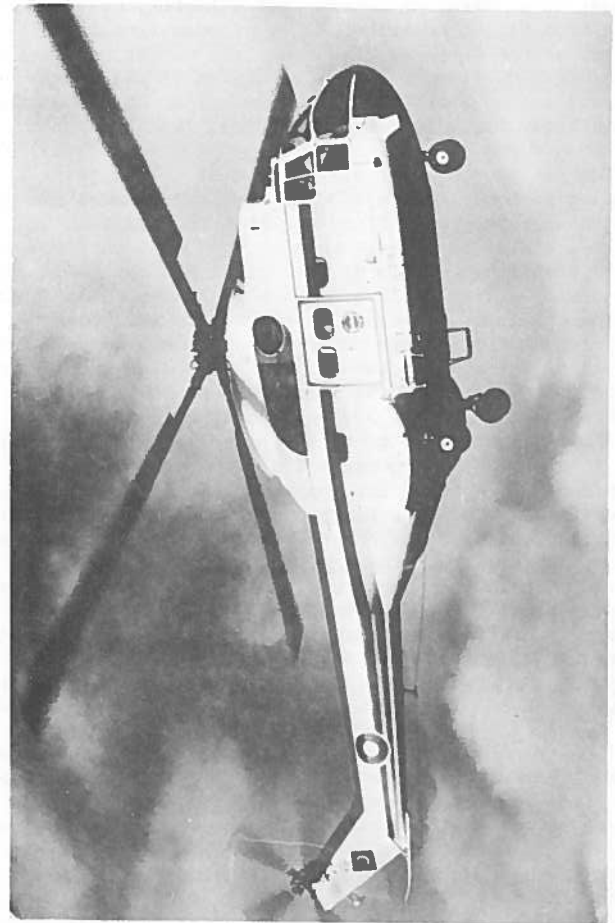
UNITED NATIONS HIGH COMMISSIONER FOR REFUSEES







Royal Netherlands Air Force Friendship at Soesterberg, 1977 (Fred Bachofner)



Pakistan Air Force Puma (Chris Bardou)



Uruguay Air Force Texan (Gary Kuhn)



# ISRAELI OURAGANS

by Z. Margulies

Marcel Bloch was, in 1945, a symbol of WWII France. He had fought the Germans early in the war through his fine combat aircraft, some of which were equal to anything the Germans could put up against France. After the fall of France he had taken an active roll in the Resistance and had ended the war in Buchenwald. He left that unspeakable place with a resolve to help, in any way he could, to rebuild his shattered homeland. By 1949 his first great feat was accomplished when the first Dassault M.D.450 prototype was rolled out at Melun-Villaroche. "Dassault" was the name which Bloch used while with the Resistance and the M.D.450 Ouragan (Hurricane), France's first jet powered combat aircraft, was soon to see service with other survivors of Hitler's death camps, the new nation of Israel.

The Ouragan did not see a great deal of combat in the Heyl Ha'Avir, the approximately seventy-five aircraft in service being basically a stop-gap until the more advanced Mystere IVA could be delivered. The Ouragan did, however, prove its worth during the 1956 Sinai campaign and during the numerous air clashes during that period. Ouragans fared well against Jordanian Vampires, Egyptian MiG-15s, proved to be an excellent ground attack machine and participated in the capture of the Egyptian destroyer Ibrahim-el-Awal. Aside from active combat, the Ouragan served on for a number of years in the training role. Its service in the IDF/AF was most valuable in that it provided a much more modern jet aircraft than the Meteor (Israel's only jet aircraft until the arrival of the Ouragan) for Israeli pilots to learn modern tactics in. The present disposition of Israel's Ouragans is not known in detail. It is known that eighteen were sold to Salvador and it is possible that the remaining survivors serve on in the training or instructional airframe role.

In presenting the following drawings of Israeli Ouragans, please take into consideration that material on Israeli aircraft is scarce. The drawings are made from photos appearing in various publications over the years (these publications are listed in the bibliography at the end of the article), many of which had been censored. Censoring photos, however, is not always a perfect art and many of these photos, on close inspection, reveal much more than they first appear to. Wherever there is doubt in the mind of the artist a notation has been made.

The first Ouragans delivered to Israel were twenty-four machines flown directly from the factory at Merignac. These were later supplemented by forty-two delivered from French Armee de l'Air stocks. A further nine were later delivered, also from French Air Force stocks. All aircraft were delivered uncamoouflaged, with Israeli stars on white disks in two fuselage, four wing positions, and with four-digit identification numbers below the cockpit. For the ferry-flight a special civil code was carried on the nose. This consisted of the letters 4.X.FR and the individual aircraft letter, A through X, most likely. The lettering applied to all Dassault aircraft which indicates manufacturer, aircraft type and c/n was applied to the rudder in very small lettering. Drawing (a) is typical of this first batch of 24. The factory information on the rudder reads: AVIONS

M.DASSAULT  
450 N 378

The 450 indicates aircraft type (M.D.450). The letter N refers to the powerplant, the Nene. This is aircraft c/n 378 which carries Israeli identification number 5642 and ferry-flight radio call letters 4.X.FRB.

Shortly after arrival in Israel the temporary ferry-flight radio call letters were removed. Documentation is sketchy on these aircraft, so we are unable to confirm the a/c number of 5647 shown in drawing (b). 450 N 525 would be a good guess if the factory marked the aircraft in production line order. This is doubtful, though, as

the photo in PROFILE #143 by Kenneth Munson shows aircraft 5651 to be 450 N 400, the 300th Ouragan built. Another photo in AIR PICTORIAL, August, 1965, shows aircraft 5644 and the c/n seems to be 450 N 525.

Removal of ferry-flight letters and camouflaging of the Ouragans must have taken place over a relatively long space of time. A photo in Green's AIR FORCES OF THE WORLD (1958) shows unpainted Ouragans both with and without ferry markings (in both cases the censor has painted out the first two digits of the Israeli aircraft number) parked next to a fully camouflaged machine. The camouflage appears to be dark blue-grey and sand with a pale blue underside as shown in drawing (c). The photo in Green's book, however, shows a different style of number, stencil style, white on the nose and on the tail. Drawing (c), from a photo in AIR INTERNATIONAL, March 1977, shows the number 64 in white on the nose, black on the tail, both solid with no stencil lines. A squadron marking is also carried on the machine illustrated which does not appear in the photo in Green's book. This is most likely the bat insignia provided on MICRO SCALE sheet 72-106. Note the white stripe on the tail, blacken gunport panels and the lighter-colored access panel.

The Ouragan may not have seen too much action with the IDF/AF, but it went into battle in full dress. The full camouflage with white nose and tail numbers and squadron badge provided the basis for the most colorful of all Ouragans. During the 1956 Suez crisis a sharkmouth motif and Suez bands were added. The bands were black and yellow applied around the rear fuselage ahead of the star and around the wings inboard of the star. The second volume of SHARKMOUTH by AIRCAM shows a color side view and an overhead sketch which show these aircraft stripes quite well. Unlike many of the AIRCAM drawings, this one is quite well done, lacking only the squadron crest as shown in drawing (d). Again, this is probably the bat insignia. Mouth and eyes are red and white. There are no pupils to the eyes.

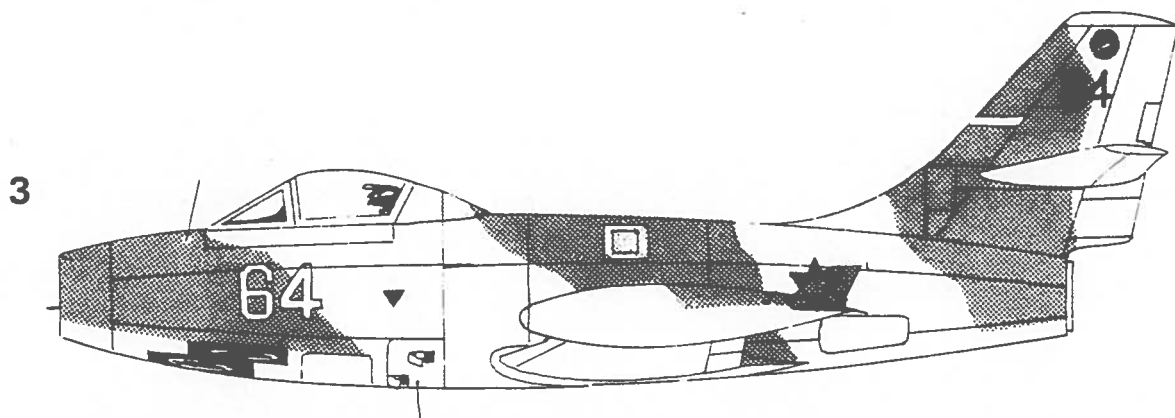
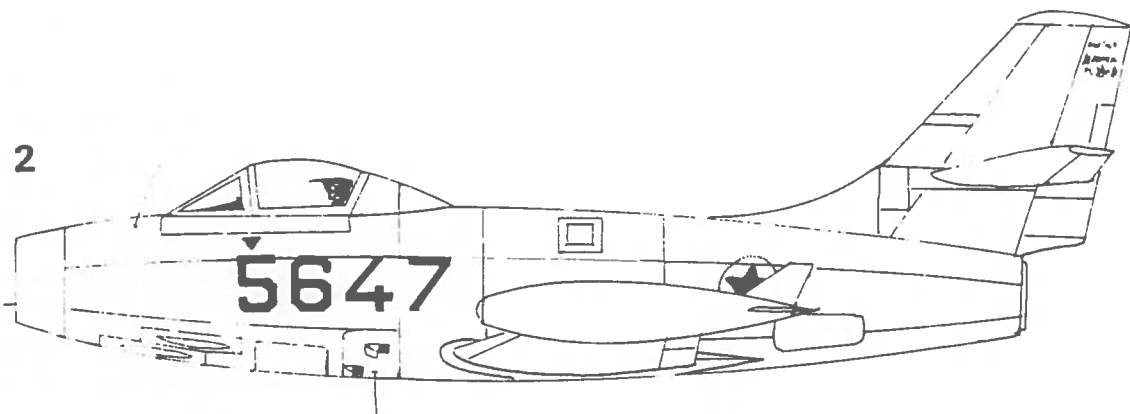
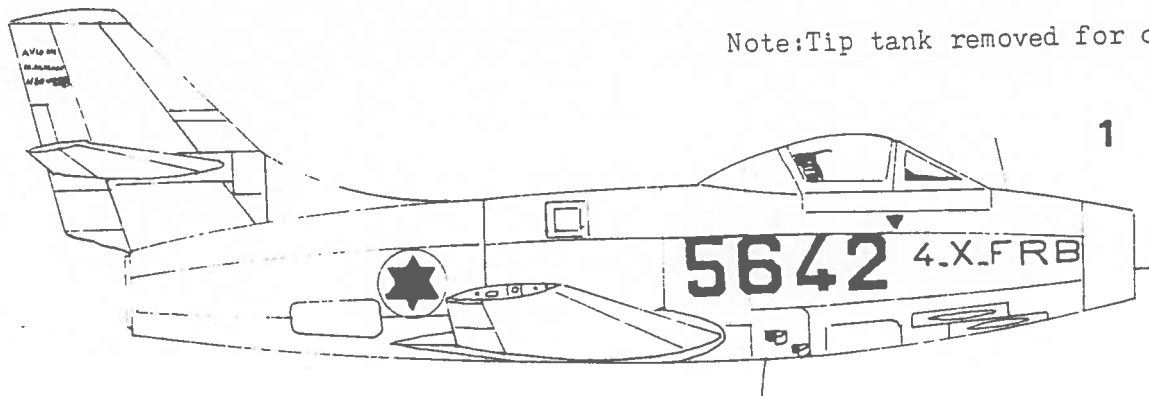
After the Suez operations the stripes were removed. The sharkmouth was retained, but in a slightly different state. The mouth is now black with a red tongue. The eyes are now black and white with red pupils. The Hadar/Ofer book on the IDF/AF shows one of these aircraft, apparently aircraft 63, as shown in drawing (e), but with all camouflage removed. The white stripe on the tail is retained and the markings appear to be in white, unusual for a natural metal aircraft. The original factory markings on the rudder are gone. One photo shows four aircraft in these markings.

Training units apparently utilized stock Ouragans retaining their camouflage and blackened gun-port panels. Trainers were equipped for ground attack with bombs and rocket racks beneath the wings. These consisted of a single bomb rack beneath each wing flanked by two rocket rails. As stated previously, camouflage was usually blue-grey and sand, but by the time the Ouragan entered OTUs there may have been exceptions, possibly dark green and tan as seen on other Israeli aircraft of the period. Three digit aircraft numbers were carried in white on the nose. The last two digits were usually carried in black on the tail. It is possible that unit insignias were carried on the tail as shown in our illustration of aircraft 445 (drawing (f)). Note that aircraft 383 (drawing (g)) has the port drop tank left unpainted. Stbd. tank was camouflaged.

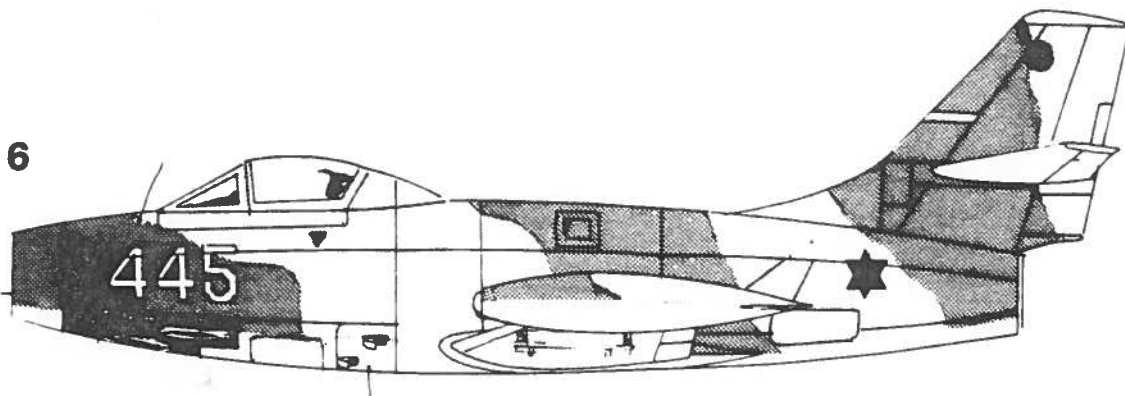
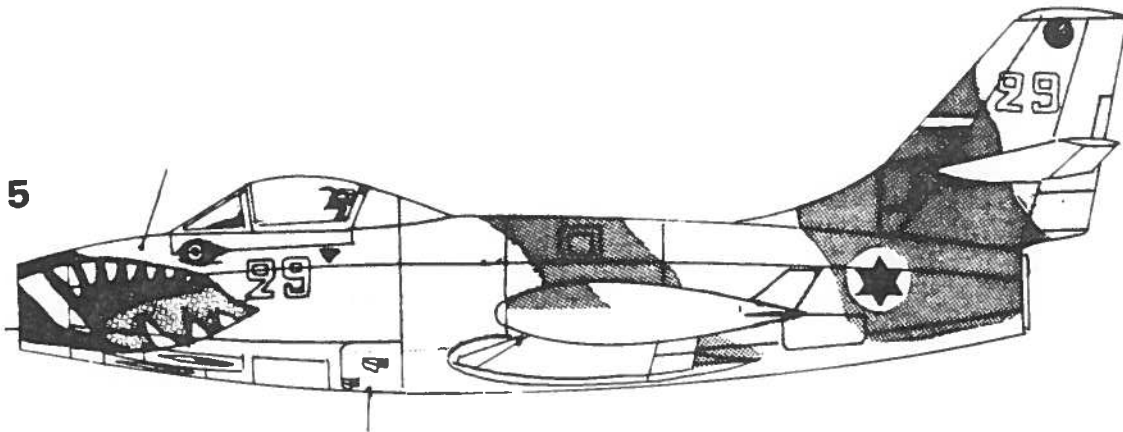
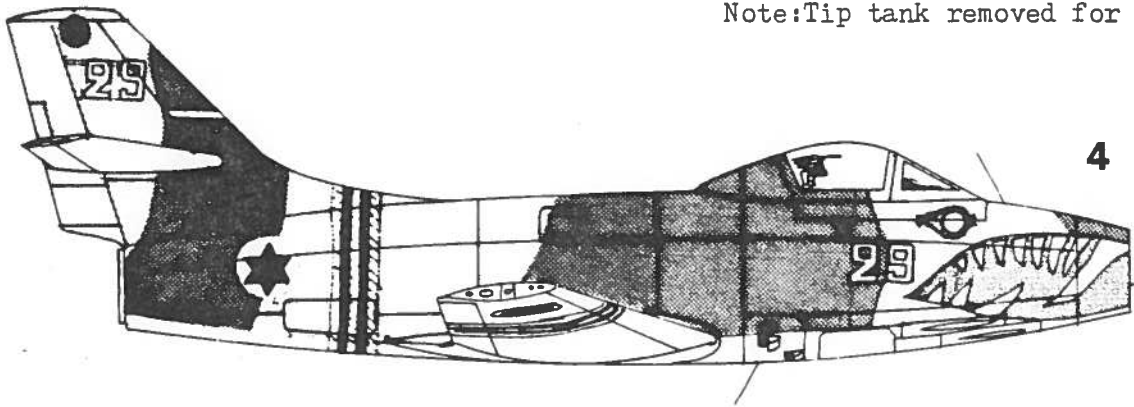
MODELING THE OURAGAN: While no kit currently exists of this important and colorful aircraft, it can not be too long before some major manufacturer shows interest. In the meantime, two French publications have provided enough material to scratchbuild a 1/72 model. MAQUETTISTE, the Journal of IPMS France, has done a thorough scratch-

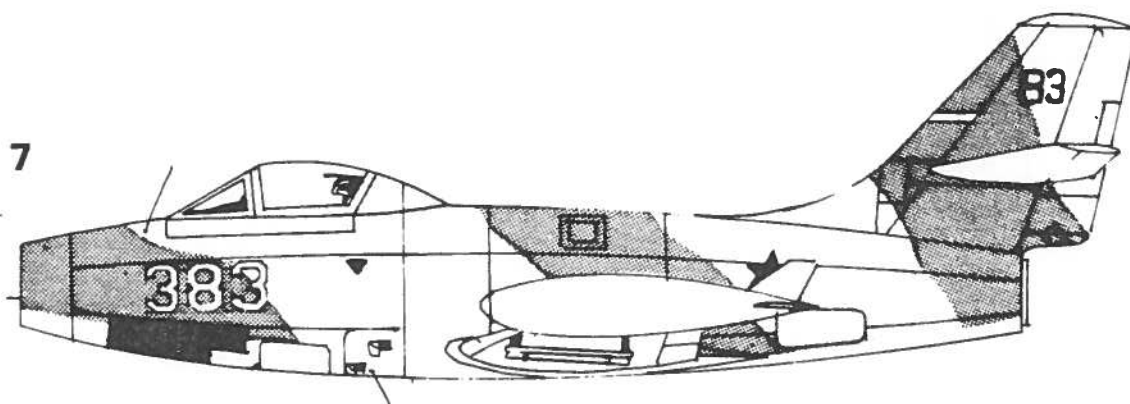
(Continued on page 131)

Note:Tip tank removed for clarity.

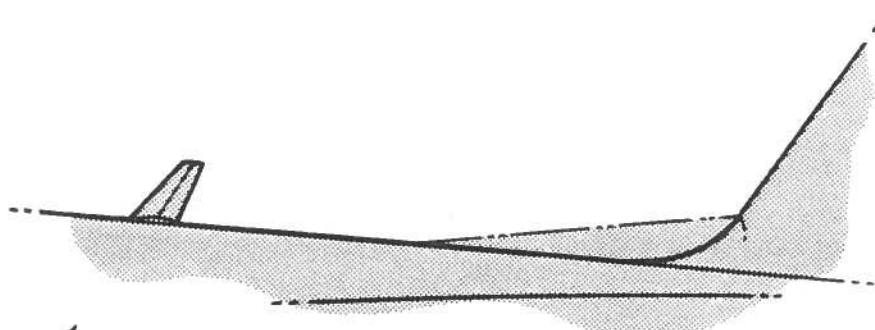


Note:Tip tank removed for clarity.

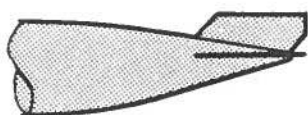




ACTUAL SIZE TEMPLATES FOR MONOGRAM'S 1/48 SCALE  
NORTHROP F-5E TIGER II KIT.



↗ Dorsal Antenna Arrangement as Used on Brazil,  
Chile and Kenya.



← Centerline Drop Tank Fin Shape



KIT REPORT  
MONOGRAM'S F-5E TIGER II

This 1/48 scale kit is really a mixed bag. The F-5E is an attractive airplane and one that many modelers will enjoy. Its world-wide deployment will keep the decal manufacturers busy for a long time!

The model is very accurate in outline and scale, and all the contours look correct. The kit has some short comings (as most kits do) and I feel that the following comments might be of value to someone.

Following Monogram's building sequence, I started with the cockpit and seat area. The F-5 canopy mechanism (understandably) defeated Monogram's die-makers and they took some short cuts with the design. I solved this problem by electing to have the canopy closed on my model, but if you want your canopy open you should fabricate some "black boxes" to fill in that bare area on part #20. Monogram also has some "holes" built into the floor and some other areas of the cockpit. I don't know why they did this, but fill them in with styrene sheet while you have the chance. I painted the various details in different shades of medium to dark grey to pick out the details. I painted the control panel very dark grey and added some red and yellow spots here and there on it to simulate some of the controls. The radar scope was painted a dark green, the pilot's head rest was a dark dull red, and a strip of yellow was put on the ejection seat arms to highlight the ejection seat actuator grips. The cockpit details were then installed into the fuselage upper half (piece #1).

After carefully checking over the absolutely horrible and useless stores, I decided to make the model clean, with no pylors (#41, 42, 43) and with the landing gear doors (#33, 34, 39) and speed brakes (#16, 17) shut. The doors gave me some trouble because they are a bit too small and they tend to fall into their respective recesses when they are being glued in. This makes for extra filling and sanding that could best be avoided by putting some scrap styrene shims in each recess.

This model suffers from the "empty airplane" syndrome and I put some styrene sheet into parts #1 and 2 to block the view thru the airplane. This is something which Monogram could easily have incorporated in their design. I wonder why they didn't?

Now to the fun part - gluing the fuselage together. I finally decided that I would have to hold the aft fuselage in one hand, the forward fuselage in the other hand and one wing stub in my third and fourth hands until the glue set up. Those of you with only two hands will have a slight problem!

At this time, you must decide exactly which country F-5E you want to model. I chose the Republic of China (Taiwan) which did not require the fin cap (#15) or the little side antennas (#24, 25). In general, this configuration can also be used by Iran, Jordan, USAF, USN, So. Viet-Nam (and now Vietnam!), So. Korea and Ethiopia. Swiss aircraft will use the side antennas (#24, 25) while Saudi Arabian aircraft use the fin cap (#15). Additional comments: The USN Aggressor camouflage should wrap around the bottom of the airplane and the "NAVY" and star-and-bar insignia are on the bottom surface only.

The drop tank (#46, 47) must have its vertical fin shortened per the attached sketch if you install it on the centerline. It is O.K. to use on the inboard wing pylon, but you will have to get another one for the other wing.

The gun pods (#54, 55) should definitely not be used on the F-5E. I don't know what Monogram had in mind when they put them in this kit. You might want to grind the gun barrels off and reform the front to an ogive shape (like the tail cone) and call them Napalm tanks.

The laser guided bomb (#52, 53) is crude and much too big (probably a 1,000 lb instead of 500 lb bomb). Put this on your A-10 model instead.

I finished my model in the air superiority mottled grey pattern and used Micro-Scale Decals from their #72-104 set. The roundels only are used, on the upper surfaces of both wings and on each nacelle, just aft of the light fairing. They are very close to the correct size.

Summary: Basically a fine model, but with evidence that Monogram got careless with some small details and guessed at a few rather than taking the time to find out.

Gus Morfis  
SAFCH #3

MIKRO YAK-1M: The second 1/72-scale kit by the new Polish firm, Zakłady Tworzyw Sztucznych, is a noticeable improvement on their first release. As with the LWS Czapla, the Yak-1M is accurate in scale and outline, and the surface detailing is excellent especially the simulation of the fabric-covered areas. Substantial improvements are to be seen in the amount and quality of the interior detail - included are firewall, two-part seat, radio equipment, and control stick; the rudder pedals and an instrument panel are molded into the cockpit floor, and diverse cockpit controls are molded on the inside surface of the fuselage halves. Improvement is also noted in the molding of the small parts so that, unlike the struts in the Czapla, none have to be replaced. However, the detail on the landing gear legs and retracting rods is still below that expected from the better companies. A most exciting 'first' for a Polish kit is the provision for alternate parts to built either the "razorback" Yak-1 or the "all-around-vision" Yak-1M. The instruction sheet is a gem; the construction steps are clearly explained in drawings, each of which is a miniature work of art. The decal sheet is beautifully printed and provides mark-

ings for four a/c. Markings are provided for a Russian Yak-1 in 1941 winter camouflage. The Yak-1M can be finished either as a machine from the Normandie-Niemen in 1943, or as a machine from L PLM Warszawa in the same year (with red stars and a small Polish 'chess board' in front of the cockpit), or as a machine in Polish markings from 1945. As with the Czapla, the colors are identified by their Humbrol numbers. In summary, the Yak-1M is a very fine kit that is a must in any collection of models of WW II a/c. The serious SAFCH modeler will want to build both versions. Conversion to a Yak-7 is possible and it may be easier to make a Yak-9 from this kit than from the AIRFIX Yak-9.

NOVO MIG-3: This kit was reviewed in SAFO #11. I now know why my MiG-3 arrived without canopy and decals. It seems that this was a "preproduction run", so that this kit is not available yet. Much worse, however, is the news that this kit may not be produced. Don't ask me why, but let's hope that this information turns out to be incorrect.

## The Cierva C.30 in Lithuania

The Aero Club of Lithuania (LAK) placed an order for a Cierva C.30 autogyro in the second half of 1934, at a cost of 40,000 Litas (approximately \$8000). Mr. J. Garolis was sent to England for flight training and the autogyro was received by LAK in May of 1935. Official presentation of this strange looking aircraft, registered LY-LAS, took place at Kaunas airport. This was the first aircraft of this type in the Baltic States (Lithuania, Estonia, Latvia, and Finland).

In September of the same year, the Aero Club of Lithuania sent an "air train", consisting of the autogyro and a glider with its tow plane, on a friendship visit to the other Baltic States. The itinerary was: Kaunas - Riga - Tallin - Helsinki - and back to Kaunas; the trip lasted ten days.

Later, J. Garolis made the following recollections about this trip (LIETUVOS SPARNAI, No. 7 1938): "At the Helsinki military airport some of the newsmen talked me into landing the autogyro in one of the city's main squares so that more people could see this strange bird. When I arrived over the city, the square was not hard to find; it was crowded with people. After landing, I looked around and started worrying about my departure. Friendly Finns had removed all obstructing posts, but the square was fairly small and on one side was a high-voltage power line and on the other side an eight-story building. After saying a few words of greeting in Lithuanian, I contemplated my take off. The tall building was staring at me and I was not 100% sure about success. After leaving the ground, the autogyro began to gain altitude, but right in front of the building she used up all of her spare velocity. There I was hanging helplessly, looking into the windows of the building, unable to move forward or backward. Meter by meter I slowly approached the wall, still without sufficient altitude or speed. The situation was hanging on a thin string. Finally, I succeeded in rising above the building and felt a big relief when the red roofs were not in front or above me but below me. In the eyes of the Finns, the prestige of the autogyro was defended."

During the next few years, Mr. J. Garolis trained several other Lithuanian civilian pilots to fly the autogyro.

After the occupation of the Baltic States by Soviet Russia in June 1940, all aircraft of the Aero Club of Lithuania were dismantled and stored in a hangar at Aukstagiris near Vilnius. After the Germans invaded Russia in June 1941, they re-assembled these aircraft and moved them to Parubane airport. There the Germans

learned to fly the autogyro, but one day a sudden gust of wind overturned the aircraft and damaged it severely. There was no attempt made to repair the aircraft and thus was the end of Lithuania's only autogyro.

Mr. J. Garolis, first autogyro pilot and instructor in Lithuania, fled the approaching Russian armies in 1944 and after WW II emigrated to Sydney, Australia, where he passed away in 1972.

Edmund Jasiunas SAFCH #287



The Lithuanian Aero Club's insignia as carried on both sides of the vertical fin of LY-LAS. The wings and letters "LAK" are silver and the diamond is divided from top left to bottom right into yellow, green, and red bands. The information for this badge was supplied by Paul Branke (SAFCH #148) and is based on a metal badge made by Gravelit Kaunas.

### Photo Captions

1. The Lithuanian Aero Club's Cierva C.30 at Kaunas Airport, 23 May 1935, on the occasion of the aircraft's first demonstration to high officials and aviation enthusiasts in Lithuania. (Edmund Jasiunas)
2. LY-LAS in Finland, 17 September 1935, during the friendship tour of the Baltic states. Note Lithuanian Aero Club's insignia on vertical fin. (Finnish Air Force's Photo Archives; via Paul Branke)
3. Another view of LY-LAS. (Via Paul Branke)
4. LY-LAS on Spilve Airfield at Riga, Latvia in 1938. The Latvian Air Force DH-9A's in the right background are noteworthy at this late date. (Albert Gudermanes)

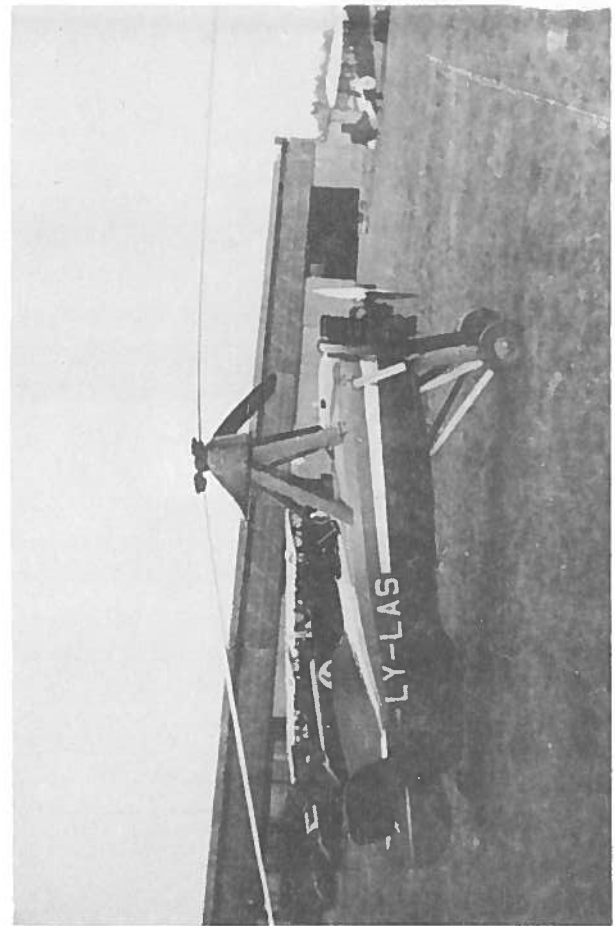
[illegible]

COLOURS FOR SPECIFIC PURPOSES, British Standard 381C. This booklet, the British equivalent of FS595, contains 6 pages of 15 mm by 35 mm glossy colour chips: Blues and Blue-Greens (17); Green and Green-Yellow (23); Yellow and Yellow-Red (22); Red (13); Grey (10); Strong Colours (17). All the a/c colours are here, including a/c blue, sky, a/c grey green, dark earth, RAF blue grey, PRU blue, medium sea grey, dark sea grey, light slate grey, extra dark sea grey, dark green, night, a/c grey, and more. BS 381C is available from the British Standards Institute, 101 Pertonville Rd., London N1 9ND at £5.60 plus postage for overseas members. (Many thanks to John Barnfield for obtaining a copy of BS 381C for me. John is very interested in contacting anyone in the USA interested in exchanging kits, magazines, photos, etc. Sounds like a good way to get AIRFIX and MATCHBOX kits early and at substantial savings. Anyone interested should write to John Barnfield, Orchard View, Farm Lane, Shurdington, Nr. Cheltenham GL51 5XN, ENGLAND.)

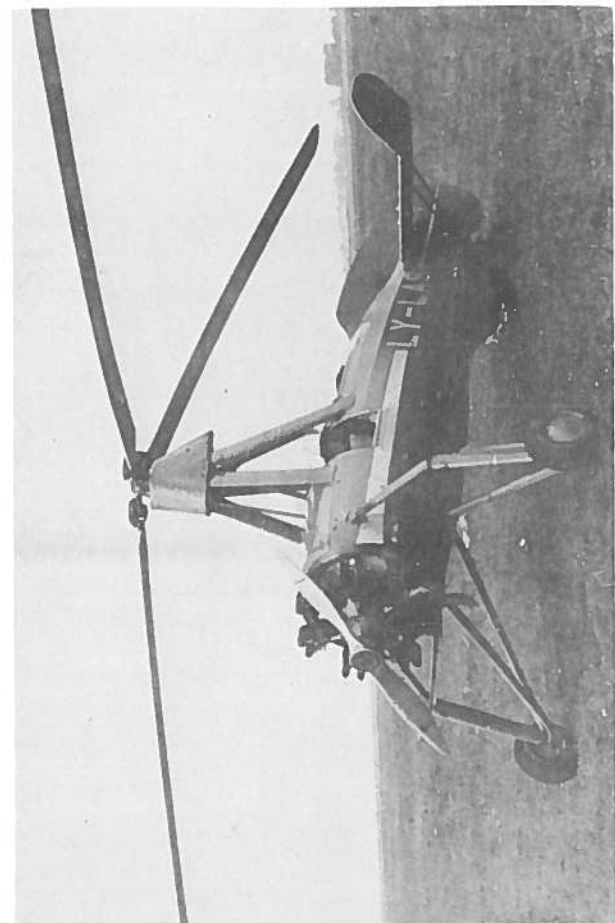
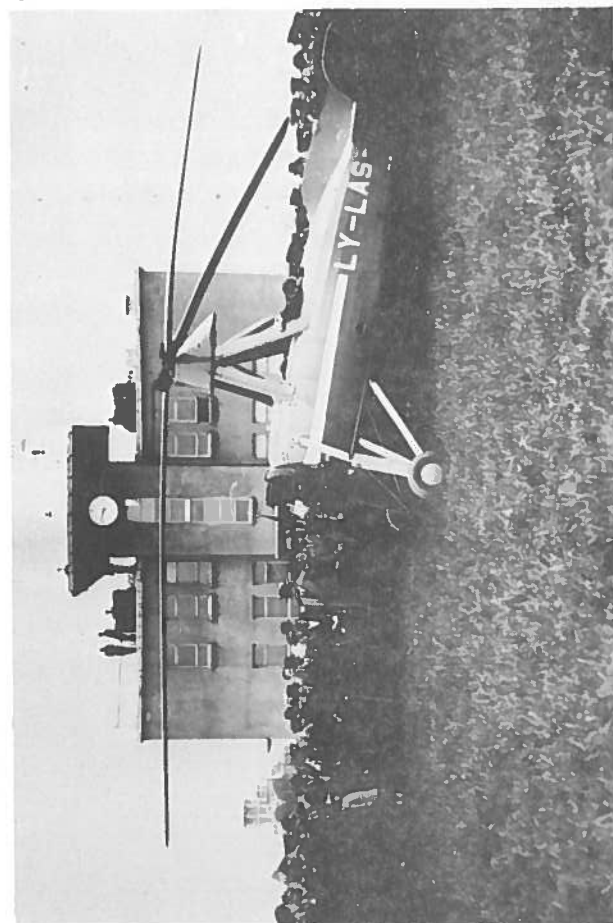
FEDERAL STANDARD 595a. While on the subject of color (or colour) standards, I might as well review the US standard. FS 595a contains .26 pages of 1/2 in. by 1 in. color chips in gloss, semigloss, and lusterous (flat) finishes: Browns (55); Reds (24); Oranges (26); Yellows (54); Greens (111); Blues (54), Greys (73); Miscellaneous (32); & Fluorescents (6); plus 56 more colors in the three "change notices" included with the present printing. All colors are denoted by a five-digit code system that is more formidable than the British system of naming the colors. The present price for FS 595a is \$4.50 to Specifications Distribution Branch, Building 197, Washington Navy Yard, Washington, DC 20407. (Because of the large number of colors available in FS 595 and because it is relatively inexpensive, it is strongly suggested that all SAFO authors needing to describe colors should consider using FS 595a as their guide. Non-US members should experience no trouble obtaining FS 595s, but if anyone does have trouble, send the money to me and I'll obtain a copy for you.)



2



4



3

# Markings of Austrian Army Aircraft 1931-38

by Fred Haubner

Although the Treaty of St Germain signed on 10 Sept. 1919 expressly forbade the establishment of military aviation in Austria, a small air arm was clandestinely built up with the first aircraft, Udet U-12 Flamingo biplanes and Hapfner 8-29 monoplanes, arriving in 1931.

At first, Austrian military aircraft carried the standard Austrian civil registration and national markings: The registration consisted of the national letter A followed by numbers from 1 upwards (e.g., A-113 for Udet U-12a). The national markings consisted of three horizontal bands (red/white/red) on the rudder. Aircraft for military use were identifiable only by the addition of the Dienstnummer (service number) in the middle of the white band of the national marking. The first digit of the D/Nr indicated the aircraft category: 1 for fighters, 2 for reconnaissance, 3 for bombers, 4 for primary trainers, 5 for advanced trainers, 6 for liaison, 7 and 8 not used, and 9 for sailplanes/gliders.

On 7 July 1935, the civil registration system was changed: While the rudder markings remained unchanged, the national identity letter A was replaced by OE and the number identifying the individual aircraft was replaced by a three-letter "call sign". For example, Udet U-12a became OE-TEF. These semi-civil registrations were assigned as follows:

OE-T.. Trainers  
OE-N.. All-metal, single-engine aircraft  
OE-H.. All-metal, multi-engine aircraft  
OE-F.. Unarmed aircraft that could have armament fitted.

Soon thereafter, the Treaty of St Germain was abjured and the Austrian Air Force came out into the open. The markings adopted for military aircraft remained a mixture of civil and military regulations. Unarmed aircraft continued to be marked as their civil contemporaries, with the red/white/red rudder bands and the OE registration. The D/Nr continued to be displayed in the middle of the white band on the rudder. Another distinguishing feature of aircraft operated for the military was the allocation of the letter F, H, N, or T as the first letter of the call sign. (Civil aircraft received their OE registration from the Federal Ministry of Traffic while military aircraft received theirs directly from the Army.)

Armed military aircraft were now distinctively marked. The red/white/red rudder bands remained in use, but in addition, a national insignia consisting of a white triangle in a red circle, was carried in the usual six positions. OE registrations were not carried on armed aircraft, but the D/Nr was now carried on both sides of the fuselage directly behind the national insignia as well as being retained on the white rudder band.

	Representative Dienstnummers	
Fighters	Fiat CR.20	11-19, 110-134
	Fiat CR.30	184
	Fiat CR.32	147,150,153
	Focke Wulf FW 56	101-102
Reconnaissance	Ansaldo A.120	21-22
	Ansaldo A.120R	23-28
Bombers	Focke Wulf FW 58	301-309
	Junkers Ju 86E-2	311-313
	Hirtenberg HS 9	434 (OE-TAR)
Primary Trainers	Udet U-12a	41 (OE-TAF)
	Udet U-12o	435 (OE-TOG),
		441-450 (OE-TEL,
		TAL,TUL,TEA,TIA,
Advanced Trainers		TOA,TUA,TBA,TCA,
		TDA)
	Hirtenberg HM 13	53 (OE-FEH)
	Gotha Go 145	530-537
Liaison	Avro 671	63 (OE-TAX)

(Editor's notes: Additional information on this subject is found in OFH NACHRICHTEN 1/78.

Junkers F 13	A-2	D/Nr 5	OE-NKJ
"	A-34	510	NKU
Udet U 12	A-55	41	TAF
Junkers A 35	A-75	29	FAJ
DH 60M	A-78	414	TBE
Hopfner HS 8/29	A-83	410	TAH
Phönix L2c	A-84	413	TAP
Hopfner HS 8/29	A-86	411	TEH
"	A-93	412	TIH
Udet U 12	A-113	42	TEF
"	A-114	43	TIF
"	A-115	44	TOF
"	A-116	45	TUF
"	A-117	46	TAL
"	A-118	47	TEL
"	A-119	48	TIL
"	A-120	49	TOL
"	A-142	49	TOL (sic)
Hopfner HS 10/33	A-143	61	TKO

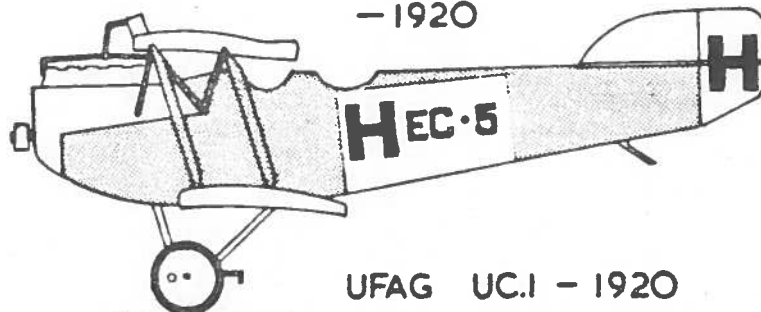
FLYING REVIEW INTERNATIONAL, Dec. '69, lists the following aircraft used by the Österreichische Luftstreitkräfte. The number in parentheses denotes quantity used.  
Brandenburg C I (5), Udet U 12 Flamingo (10), Hopfner HS 8-29 (9), Fiat-Ansaldo A.120 (8), Fiat CR 20bis (16), Fiat CR 30 (12), Fiat CR 30B (6), Caproni Ca 101 (6), DH 60M Moth (1), DH 60GIII Moth Major (20), DH 84 (1), Avro 626 (7), Fiat CR 32bis (45), Caproni Ca 133 (5), DH 82A Tiger Moth (1), Hirtenberg HS-9 (4), Junkers F 13 (1), Junkers A 2- (1), Caproni CA 100 (10), Breda BA 28 (4), Junkers Ju 52/3m g3e (4), Focke-Wulf Fw 44 (40), Focke-Wulf Fw 58B (9), Cierva C.30A (1), Gotha Go 145 (12), Hirtenberg HM-13 (4), IMAM Ro 37bis (8), Focke-Wulf Fw 56 (12), Bf 108B (4), Junkers Ju 86E-2 (1.)

AIRCRAFT, ENGINES, AND AIRMEN: A SELECTIVE REVIEW OF THE PERIODICAL LITERATURE 1930-1969 by August Hannibal. 825 pages. Scarecrow Press, \$22.50. This large book consists of a comprehensive, subject-by-subject listing of the information to be found in 57 aviation periodicals over a period of 40 years. Periodicals indexed include the well-known (AERO DIGEST, AIR PICTORIAL, AVIATION WEEK, AEROPLANE, FLIGHT, FLYING REVIEW, etc.) and the less well-known (AIR TECH, SKYLINE, BEE-HIVE, PEGASUS, etc.). Aircraft are listed by company and type, and it is easy to find what you are looking for. For example, under Max Holste, we find Broussard MH-1521: AEROPLANE F 19, '60: 234-236; AVN WK, Ag 10, '59:105-109; FLIGHT Mr 23, '56:329-330. This book's value is severely limited by the restriction to English-language periodicals. For example, types listed under Max Holste include only the Broussard and Super Broussard; certainly Max was a more prolific designer than this. In any case, this book is a good place to start any research project. If your library does not have a copy in its reference section under bibliographies (R.016.62913C.1HANC.1), you should have them order one immediately. Thanks to the efforts of Denis Maloney (SAFCH #307) SAFCH members can obtain a personal copy of this reference book at half price, i.e., \$11.25 (including postage). Send check, made out to Scarecrow Press, and a pre-addressed mailing label to Denis Maloney, 14 Lafayette Dr., Hazet, NJ 07731. (Also available from Denis is Scarecrow Press' INDEX OF MODEL PERIODICALS 1971-1975 by Paul Cardwell. This excellent book lists for \$27.00 but is available to SAFCH members at \$22.95. Follow the same procedures as explained for the Hannibal book.)

# Hungarian Trainers



PHÖNIX CJ of M.A.E.FORT.  
- 1920



UFAG UC.1 - 1920



BRANDENBURG B.1 used until  
1932 (now in museum)



WM.13 - 1933

Paul Mears

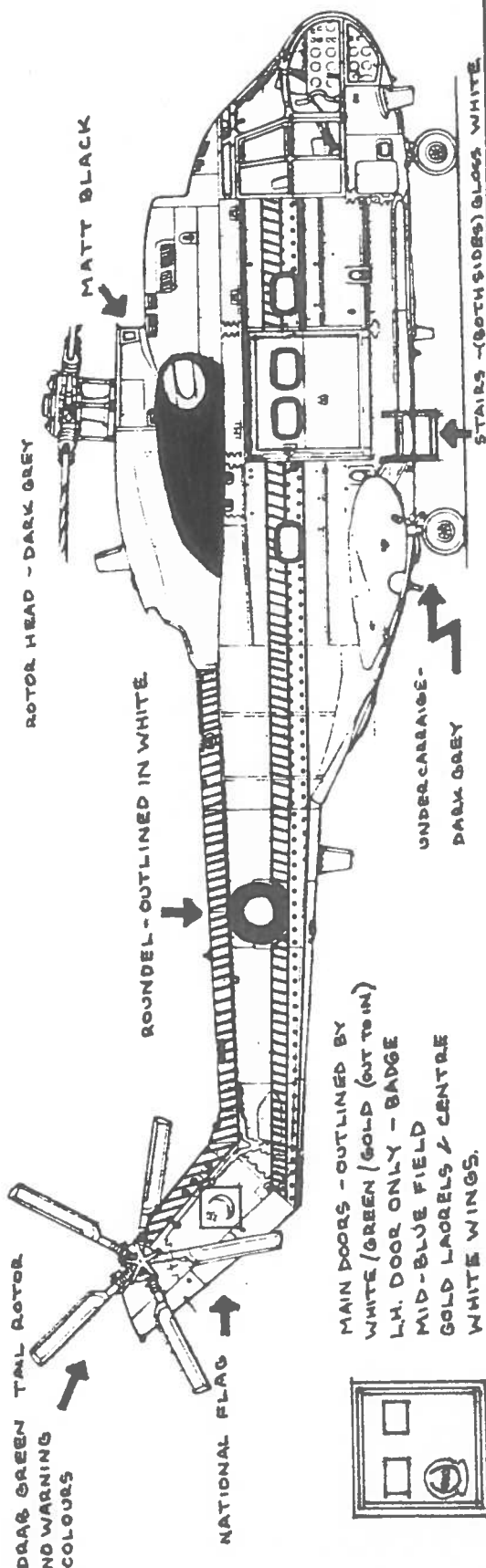




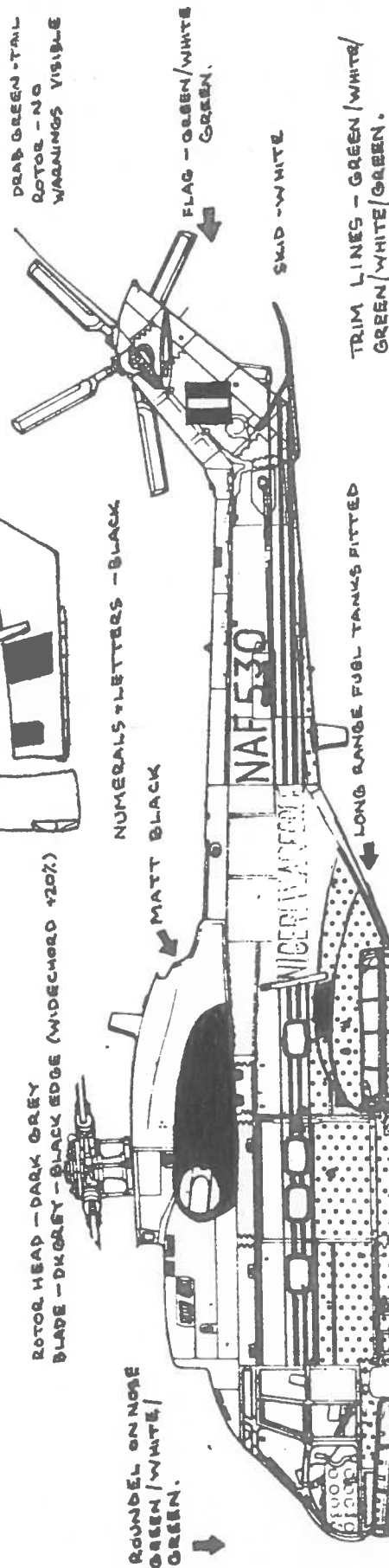
# PAKISTAN AIRFORCE

SA330 PUMA (FROM AEROSPATIALE PHOTOS)

OVERALL GLOSS BROWN WHITE  
GLOSS SIGNAL RED  
GLOSS EMERALD GREEN  
GLOSS GOLD



LONG RANGE TANKS - PLAN.



NOTE - ALL COLOURS - SEMI GLOSS.

# NIGERIAN AIRFORCE

## FOREIGN USE OF THE FW 58

(Editor's note: The original article on the export FW 58 was written by Paul Bezouska and appeared in SAFO #5.)

Thanks to the kindness of a member of the EMBRAER staff at Farnborough, I have obtained a copy of A CONSTRUCAO AERONAUTICA NO BRAZIL 1910/1976. Written in Portuguese, it is a fascinating account of the a/c industry in Brazil. This industry 'took off' with purchases made just before World War II when the Marinha agreed with Focke Wulf Flugzeugbau to manufacture under licence the FW 44, 56, 58, and 200. The FW 44 and 56 did not represent any new technology for Brazil, but the FW 58 was a big step, being the first twin engine a/c to be built in Brazil.

Focke Wulf delivered 2 FW 58's in 1939 followed by sufficient parts for 6 a/c to help get production started. The Brazilians replaced much of the equipment with items from the USA, e.g., the 7.9 mm guns were replaced by Browning 0.30 calibre guns.

The Brazilians went on to build two further batches of FW 58's. The first batch of 15 a/c were finished in 1940 and the second batch of 12 in 1942. The last batch was very much Brazilian (FW had other things on their mind by that time) and were first known as 2AVN, i.e., segundo modelo da Aviacao Naval, but shortly this was changed to 2FG, segundo modelo fabricado na Fabrica do Galeao.

After use for maritime patrol (bombing German submarines), they were converted to cargo carrying for the FAB. The last was scrapped in 1950.

As you can see, this book has a contribution to make to SAFCH research, there being masses of drawings and photos of FW 58, FW 44, PT 19, Fokker S 12, and the Bandeirante (in Brazilian, Chilean, & Uruguayan service). OK, the book is written in Portuguese, but I could read it and I gave up Spanish 14 years ago as I confused it with French.

Publisher is: Robert Pereira de Andrade, Brasiliense soc an, 01042 Rua Barao de Itapetininga, 93 Sao Paulo, Brazil.

P.S. Thank you to Paul Bezouska for getting it going on the FW 58 - all we need now is a kit.

Wyn Edwards (SAFCH #31)

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PROJECTAIR/PHANTOM II, PART 2 F4A/F4B by John Dewar, 32 pages (21.5 cm by 30.0 cm) £1.75 (US \$5.00) including postage by First Class/Airmail. The first part of this series by SAFCH member John (Ian) Dewar was reviewed in SAFO #10. In that part, Ian described the development of the F4H-1, its record-breaking accomplishments, and its entry into service with the US Navy. Now Ian turns his attention to the 696 F4A/B's built for the US Navy and Marine Corps. He describes not only the original configuration but all subsequent modifications: 46 RF4B reconnaissance a/c, 50 QF4B target drones, 12 F4G test a/c, and 178 F4N updated a/c. This Part begins with a technical description of the Phantom II, including the design philosophy, power plant, systems, and maintenance. This is followed by a section on flight test and development a/c including a table of individual a/c involved in these programs. The next section is a listing of all F4A/B serials identifying those airframes converted to other configurations. A final section is a very brief description of the F4B in action over Vietnam. Accompanying this text are 29 photos of a/c, 6 cockpit photos, 6 pages of systems and general arrangement drawings, a two-page chart of armament sections, and eight side-view drawings. The format of Part 2 is different from Part 1; the text is now type-set, justified right, and set in two-column format, resulting in a much more professional looking product and providing for much more text per page. Another change is not so welcome; gone is the glossy paper of Part 1 and consequently the quality of the photos is way below the excellent standard set in Part 1. Nevertheless, PPII/2 is highly recommended to all Phantom freaks and everyone else interested in modern a/c. PPII/2 is available from John Dewar Publications, Hoprig Farms Macmerry, East Lothian, Scotland U.K. SAFCH members may take a 10% discount. (Part 3, F4C/F4D is now in preparation.)

## AIR FORCES IN MINIATURE

(Editor's note: In MODEL-AIRE INTERNATION Vol. 2 No. 10, Tom Young presented an update on the information published on the Afghanistan Air Force in MAI Vol. 2 No. 7. With the kind permission of Tom Young, we present this new information to the SAFO reader.)

In (SAFO #4) we mentioned the earliest markings applied to Afghanistani air craft. We mentioned the "R-9" as being a Russian-built DH-9. These were, of course, R-1 aircraft, Russian built copies of the DH-9A. We have now traced two possible color schemes for these early aircraft.

We have illustrated a R-1 which appeared in JAMES'S ALL THE WORLD'S AIRCRAFT for 1925. The aircraft appears to be white or perhaps light grey overall. The only markings visible in the photograph are as illustrated. Ted Koppel has provided a detailed drawing of this emblem. Bruce Robertson comments on this emblem in his superb book AIRCRAFT MARKINGS OF THE WORLD 1912-1967. The state arms were a mosque with pulpit and prayer niche flanked with a flag on each side. Below this were crossed knives. The eight-point star motif may have been unique to this one aircraft.

Mr. Robertson shows this emblem as being outlined with a wreath of wheat and says that this emblem was carried on the tail of each aircraft. Unfortunately the one photo of an Afghanistani R-1 which appears in AIR PICTORIAL, April, 1972, pg. 122, is taken from an angle which hides the tail. However, it is a safe bet that a model of a R-1 with khaki and cream camouflage, state arms on the tail or rudder and the inscription ALLAH-u-Akhbar ("Allah is great") in black beneath the wings (visible in the AIR PICTORIAL photo) would be reasonably representative of the period.

Further notes on the latest Afghanistan markings illustrated in (SAFO #4) come from Fritz Braun. The three letters which appear on the latest roundel are 'alif, 'alif, shin. These are the initials of the Royal Afghan Army.

Mr. Robertson's fine book also reveals that chord-wise wing stripes, similar to the classic invasion stripes, were carried by Afghanistani aircraft during border conflicts. Colors are the traditional Mohammedan colors of green, red and black with green outboard, stripes placed inboard of the wing roundels close to the wing roots.

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"The new English magazine, Scale Aircraft Modelling, carried a list of AIRFIX kits that will be withdrawn. Some of these kits will be retooled, but even these will be out for an average of two years. The following are due to go into short supply:

Series 1: Gladiator, Jet Provost, Defiant, Yak-9, Fiat G 50, Chipmunk, Bird Dog, Fokker Dr 1, MiG-15, Fiat G 91, Zero, Boomerang, Cessna O-2, S.A. Bulldog, Sopwith Pup, USAF & RAF Personnel.

Series 2: Swordfish, Hellcat, Helldiver, Hs 129, OV-10 Bronco, FW 189, F-80 Shooting Star, Buffalo, F4U Corsair, Anson, Mirage IIIC, Arado Ar 196, Dauntless, A-1 Skyraider, BAC Strikemaster, Fouga Magister, Lysander.

Series 3: Belvedere, Hudson, Beaver, P-38F Lightning, F-84F Thunderstreak, BV 141, Super Mystere, Airfield Control Tower.

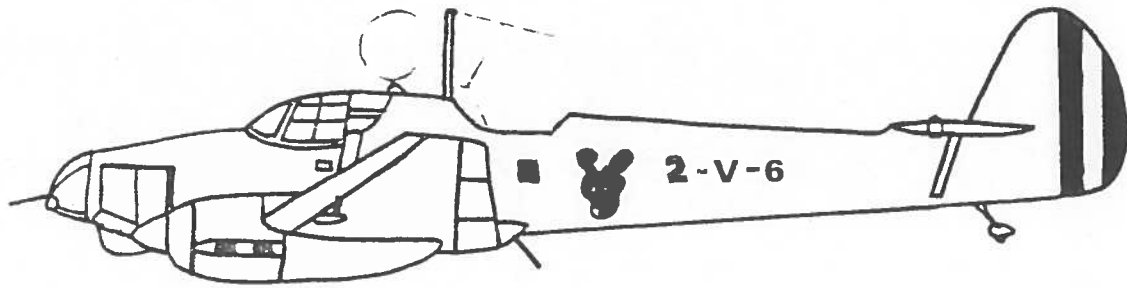
Series 4: Superfrierghter, B-24 Liberator, Catalina, B-26 Invader, Canberra, SM-79, Dornier DO-17, P-61 Black Widow, Ford Trimotor, Skyvan.

Skykings: Air France 747, Lufthansa 747, A.300 Airbus, Boeing 314 Clipper.

All series 3 'Dog Fight Doubles' will be withdrawn entirely.

Well, there you are. I don't know how this will effect the USA, but there's a heck of a lot of SAFCH type a/c in that lot." Charles Detheridge SAFCH #282

LIGHT GREY OVERALL (?)

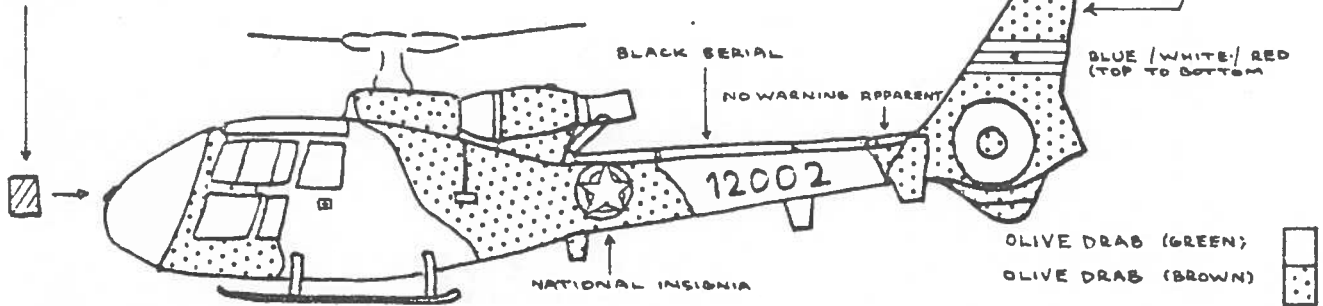


D-2Fw (FW 58) OF THE AVIAÇÃO NAVAL BRAZIL

Source 'A Construção Aeronautica No Brasil 1910-76'

W9/78

WHITE BATTERY ACCESS  
PANEL WITH 4 YELLOW  
DIAGONAL LINES.



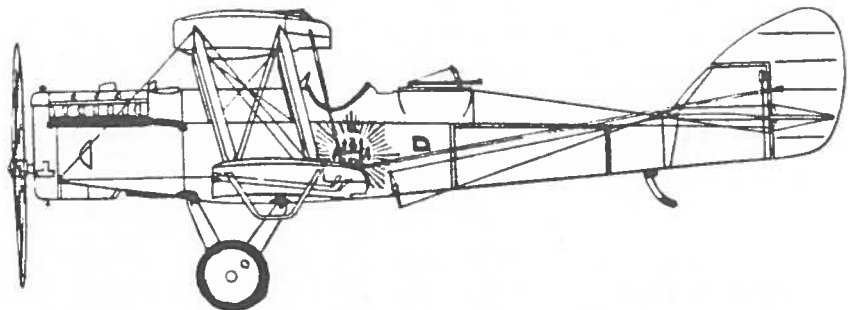
SA 341 AEROSPATIALE GAZELLE

JUGOSLAV AIRFORCE

Source Aerospatiale ref 656 courtesy E. ap Rees.

W9/78

# Air Forces In Miniature



by Mardonio Islas

Besides P-47's, 201 Squadron operated at least one AT-6. This a/c, called "de transicion", was used to check out new pilots assigned to the squadron before they were allowed to fly the P-47's. At first this a/c was finished in silver or grey, but since little is known about this scheme, I will, instead, describe the scheme as I knew it in 1959.

The plane was finished in matt olive drab overall with yellow stripes on the wings and fuselage. On the wings, the stripes were located inboard of the ailerons and were applied to both the upper and lower sides of the wings. On the fuselage, the stripe was positioned approximately 30 to 40 cm ahead of the fin and behind the national insignia. The fin itself was painted in the squadron color - a light yellowish green. The a/c code EAN 722 was painted on the fin in black.

The Mexican national insignia were placed in the usual six positions; those on the fuselage being slightly smaller than those on the wings. As with all Mexican military a/c, the rudder carried vertical green, white, red stripes with the green foremost.

The squadron badge, the well-known "Pancho Pistolas", appeared on both sides of the fuselage immediately behind the cowling. Pancho Pistolas was applied on a white disk with the legend "Escuadron de Pelea" on top and "201" on the bottom.

The propeller was black with the tips painted in 3 small stripes of approximately 3 cm each in green, white, and red. The wheel wells and inside of the wheel covers

were yellow, while the cockpit interior was the same olive drab as the exterior. The instrument panels and seats were black.

Mexican olive drab may be mixed from Floquil paints - 5 parts Pullman Green, 1 part Reefer White, and 1 part Caboose Red. The Polly S (water soluble) olive drab PCA 819 for Vietnam colors is an exact match.

As for the availability of kits to build a 201 Squadron AT-6, the situation in 1/72 scale improved dramatically with the release of the excellent HELLER kit. Still available are the AIRFIX (also on the MPC label) and HAWK kits in 1/72. In 1/48 scale the old AURORA kit is the only game in town now, but rumors are pretty firm for an AT-6 from MONOGRAM.

(Editor's note: This series, describing the markings of the a/c used by Squadron 201 of the Mexican Air Force, began in SAFO #6 with the P-47D's of the Mexican Expeditionary Air Force in the Philippines. Part 2 appeared in SAFO #8 and described the F-47D's as they served in Mexico. A letter amplifying on this latter subject appeared in SAFO #11. This third installment, as the previous two, first appeared in MODELISMO and is reproduced here with the kind permission of the author and the editor, Justo Prieto Aguirre. The translation is by Ismael Garcia Llaca.

Mr. Islas' decal sheet #2 for a 201 Squadron F-47D can be used to model their AT-6. This sheet, as are all his other decals for the Mexican Air Force, is available through the SAFCH.)

letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters

"With the large number of SAFCH members in the Avon, Gloucester area and an even larger number within easy traveling distance, it seemed like a good idea to suggest a meeting at which members could exchange ideas, ask for help, look at slides, and have a model competition. Initial response was good with 15 people intending to come. In fact, only 7 showed up but this did not prevent us from having a great afternoon.

"Proceedings opened with general discussions over some good beer and enormous helpings of food. At 2 PM we turned to the cellar bar for a slide show made possible by John Barnfield; slides coming from John, Patrick Little, and Dave Molyneux.

"John provided an interesting survey of European air forces with some illuminating shots of CAF CF104's in the variety of finishes used over the last few years and slides of Danish Drakens, from faded green to the latest gloss green. Patrick followed with a variety which reflected his interest in South America. We saw a range of a/c that culminated in a shot of a Guatemala DC-3 in a snake-type three-shades of green camouflage. His contacts at DHC produced a great variety of markings and left one hoping that Rareplanes keep to plan and bring out a Buffalo.

Dave Molyneux provided a further survey of European air forces and then produced a whole pack of Indonesian photos taken by a colleague in the CAA. He told us that the photographer had the difficult task of explaining to the business end of a rifle that he was from the CAA not CIA!

The show led one to speculate on what else is held by other members of the SAFCH.

The meeting finished at 5 PM, so that Patrick could head North, with the firm promise of meeting again in 1979. The meeting produced a surplus of \$3 which has been sent to Jim to help sponsor a SAFCH member.

NOTE FOR YOUR DIARY .....SEPTEMBER 29, 1979  
Wyn Edwards SAFCH #31

"If some members write and ask about my decals, you can give them my address because I still have a stock of different sheets. The price is US \$2.00.

"The first reprinted sheets are now available, they are the old #9 and #9 - US letters in black and white. Following these will be UK letters in black and white, West German letters in black with white outline, and Luftwaffe letters in black and white.

"The national insignia sheets will be reprinted as soon as we have all the sheets with letters on the market. It is not yet decided which countries will be first."

Jacob Stoppel, Vestgavl 1,2,th. DK2700 Broenshoej  
DENMARK

"The ex-French territory of Djibouti has started it's own air force. One rather old Noratlas is now in Djibouti Air Force colors. The a/c: Natural metal finish. The insignia:



John Grier SAFCH #251

"While looking through the Oct. '78 issue of NATIONAL GEOGRAPHIC, I came across an excellent colour photo of a Noratlas in the markings of the new African nation of Djibouti. It is apparently this air force's first and only (?) a/c. This a/c would make an interesting addition to any small airforces collection and I for one intend to make my HELLER Noratlas in these markings"

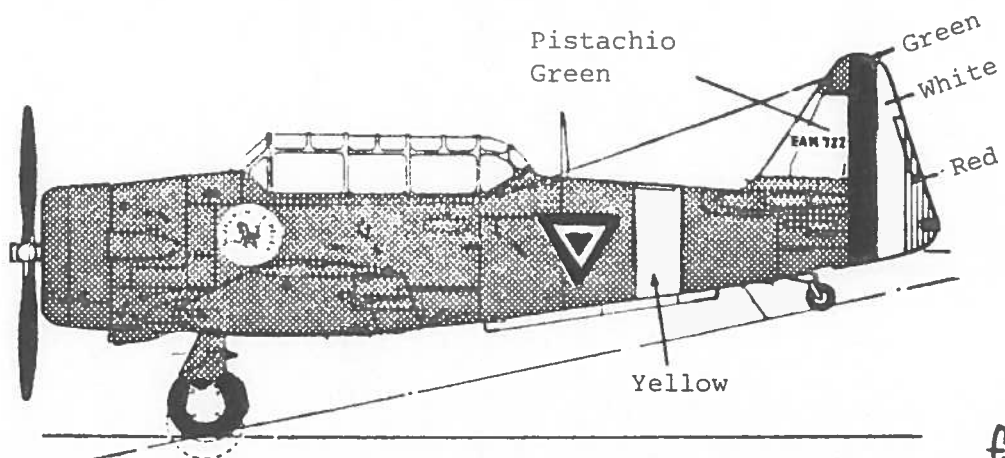
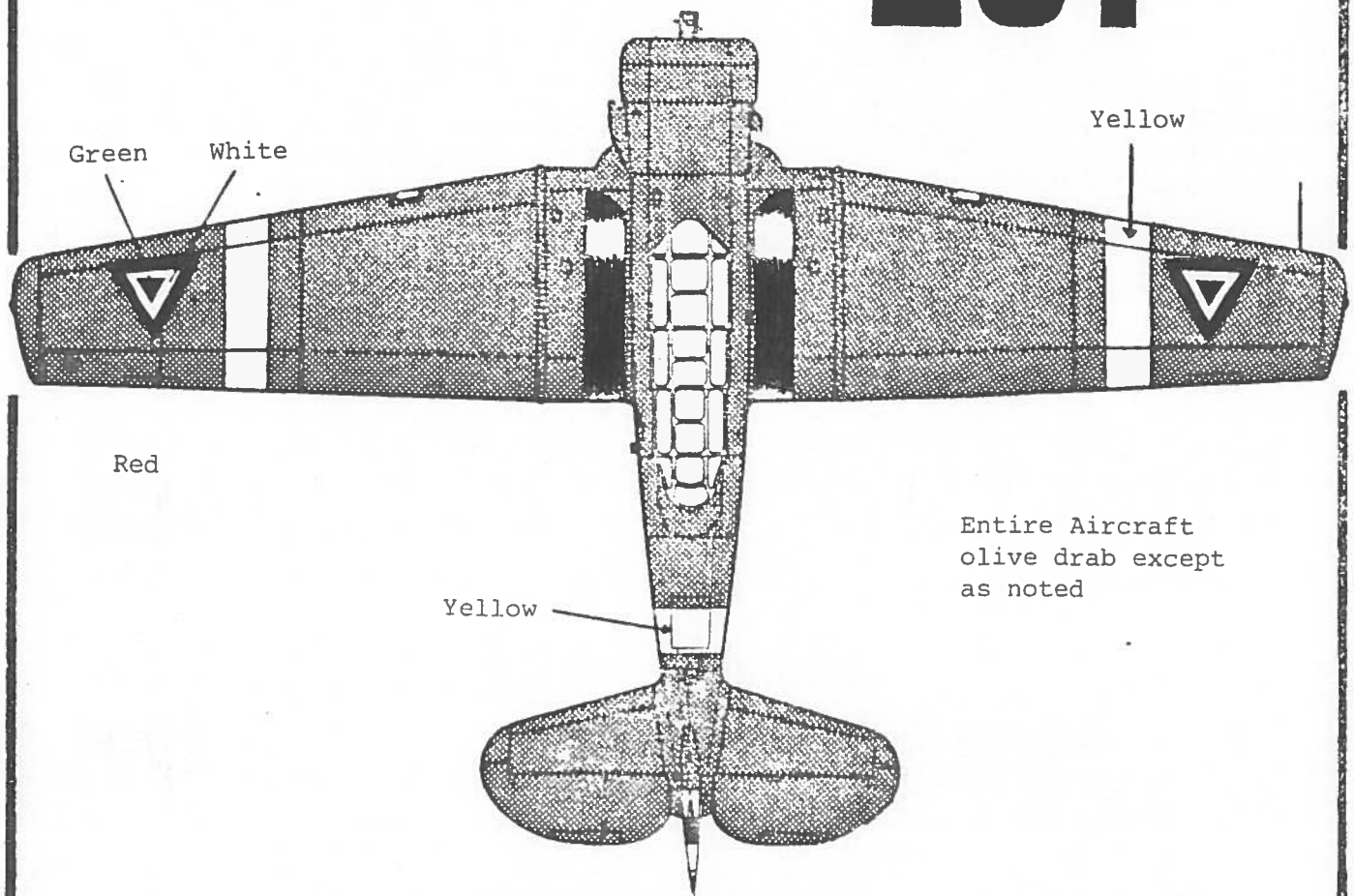
Michael Parr SAFCH # 255

"I would like to exchange quality negatives and slides with any of the members in the Scandanavian, Central or South American and Australian areas." Fred Guthrie, 10 Tarlton Rd., Toronto, Ontario, Canada M5P 2M4.

# AT-6

## ESCUADRON

# 201



f.77

# polish a/c art

"Here are two detailed drawings of 'art' painted on Polish Nieuports. I tried to find good photos of the other insignia sketched by Tomasz Kowalski in SAFO #4, but these two are the only ones for which sufficient information is available.

"1. This sad, naked girl was painted on a Nieuport 24bis. The lower part of the figure is lacking on the drawing because on the photo this part is shadowed by the wing. On the photo, it is seen that the figure and column extend to the lower fuselage longeron. National insignia on this aircraft are as shown in Mr. Kowalski's article for the fuselage and rudder; on the upper surface of the upper wing the national insignia extends from the tip up to the first rib inboard of the struts; on the lower surface of the lower wing the national insignia extends from the tip to the strut mounting.

"2. This black devil was painted on a Nieuport 27, i.e., an aircraft with a rounded tail as the Nieuport 28 and with a simple tailskid without fairing, thus probably having nothing in common with the previous aircraft. Shading is visible on one of the devil's wings (and on his shoulder), but it can not be excluded that the other wing is also shaded." Tomasz Goworek (SAFCH #252)





# identification requested



Design printed on a textured plastic material, quite shiny. An orange-red disc with a yellow bird, black ordnance, and white lettering and numbers. Details on the bird are red (background color); furthermore, the background tends to show through the yellow and white, giving an orange and pink tint, respectively. Bird's eye is black with slight white detail on it and the beak. White "speed" lines behind. None of the elements are outlined. The outer border is yellow, with yellow thread (machine sewn) attaching it to a white felt backing.



Same method of manufacture (the outer yellow stitches being closer). Shield top half medium blue, center segment of explosion orange-red, then yellow, and white center. Also white is "ERA" and central fin & "tail" of the black rockets. The black bomb has blue details. Except for "ERA" and "32" (in yellow), everything has black outlines.

[? UPSIDE ?]  
[? DOWN ?]



Small embroidered patch. Black design(s) and border on a yellow background. A stylized bird(?) and five swept-wing aircraft. [Position uncertain.]

ALL THREE EMBLEMS  
DRAWN TO SAME SCALE

Please contact SAFCH - or **TED KOPPEL**, 133 W. Lanvale St., Baltimore, MD 21217, USA

**SAFO**

## DOMINICAN AIR FORCE - FIGHTER GROUP "RAMFIS"

(Editor's note: In SAFO #9, Lennart Andersson presented a drawing of the Dominican Air Force's P-51D '1906' of the Escuadron Caza Ramfis along with an attempted reconstruction of their squadron badge. Ted Koppel did some research on this badge and his comments follow.)

"Ramfis Trujillo, the son of the late dictator of the Dominican Republic, had his own personal air force. I assume that the name "RAMFIS" was dropped after the Generalissimo was assassinated and a democratic form of government established in the early '60s.

"AIRCAM #3 on the Mustang contains two illustrations of F4D P-51Ds carrying the RAMFIS emblem. One, a b&w profile drawing of '1907', shows almost nothing of the badge. The second is a color profile drawing of '1928' which presents the badge as a red-outlined blue disk with white stars and letters and a dark figure. However, it must be kept in mind that AIRCAM is not always noted for their accuracy with colors.

"The best photo of this emblem is to be found in Green and Fricker's THE AIR FORCES OF THE WORLD. This photo shows '1907' at the head of a line-up of P-51Ds and, while giving a better definition of the shape, adds nothing to the color since it is a b&w photo.

"I have the insigne for the Grupa de Caza Ramfis that, while of the same basic design, may differ in color from that described by Lennart. This insigne is a small cloth patch (2 1/2 in.), all embroidered. Background is a yellow-gold, with five white stars and blue lettering. The green dragon has a purple wing and claws. The other wing in the background (or perhaps smoke from nostril!) is grey. The eye, mouth with flames, and border to the disk are all in red.

"It is an open question whether the Grupa and Escuadron used the same colors and it is even possible that the color of the badge may have varied from flight to flight within the Escuadron." Ted Koppel (SAFCH #118)



TK-78

## ISRAELI OURAGAN

(Continued from page 115)

building article in Vol. 1, #2. CAMOUFLAGE AIR JOURNAL, in Vol. 9, #5/6, offers excellent plans and photos (including one Israeli and one Salvadorian). Between the two there is enough material to do any of the Israeli aircraft which we have illustrated.

BIBLIOGRAPHY: Aside from the previously mentioned sources the artist and the editor made extensive use of photos from the ISRAELI AIR FORCE MAGAZINE and the following magazines:

AIR PICTORIAL, August 1963 and August 1965.

AIR INTERNATIONAL, March 1977.

FLYING REVIEW INTERNATIONAL, December 1967.

AIRCRAFT ILLUSTRATED EXTRA #2.

(Editor's note: The above article and drawings are reprinted from MODEL-AIRE INTERNATIONAL with the kind permission of the editor, Tom Young.)

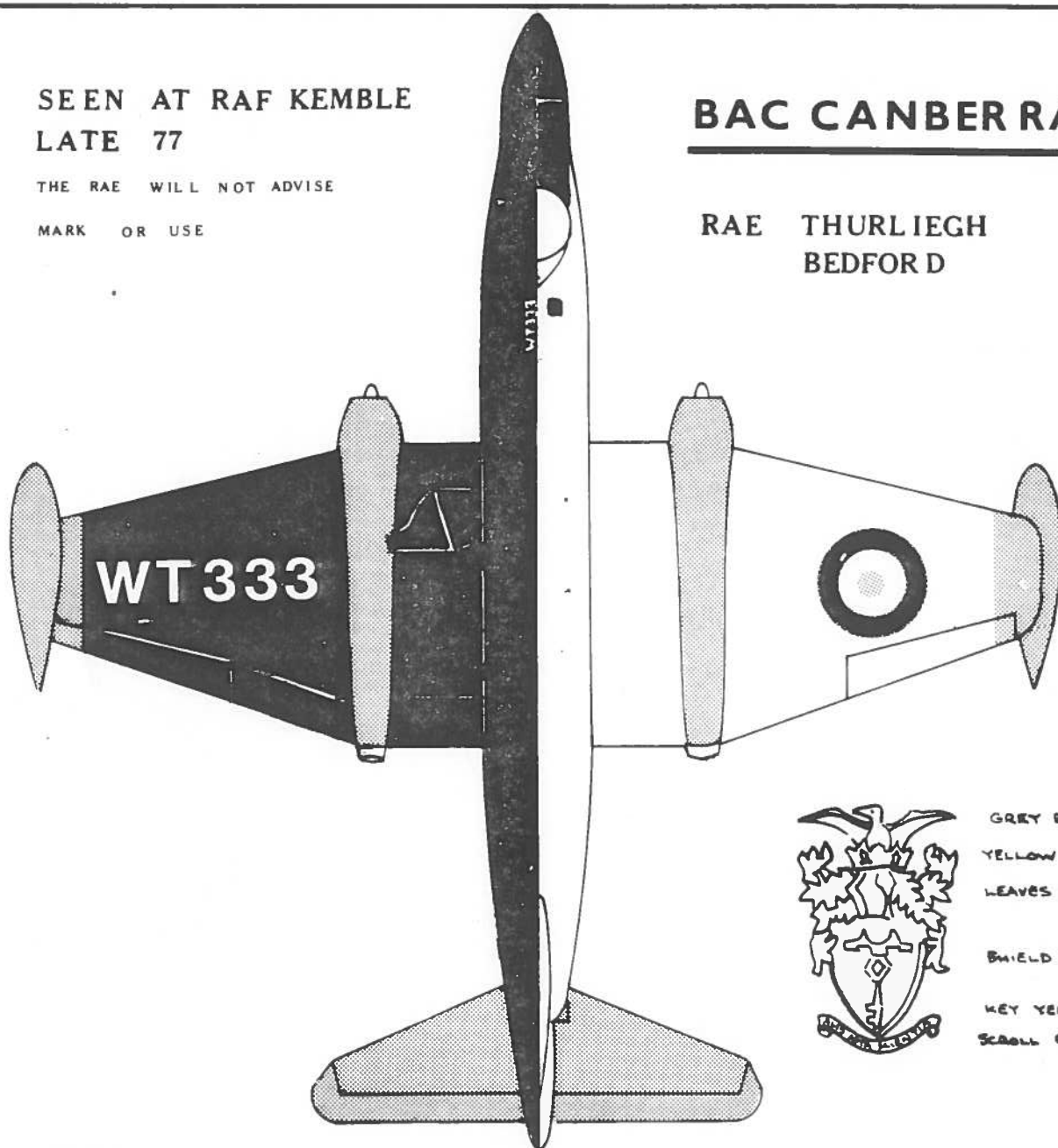
SEEN AT RAF KEMBLE  
LATE 77

THE RAE WILL NOT ADVISE

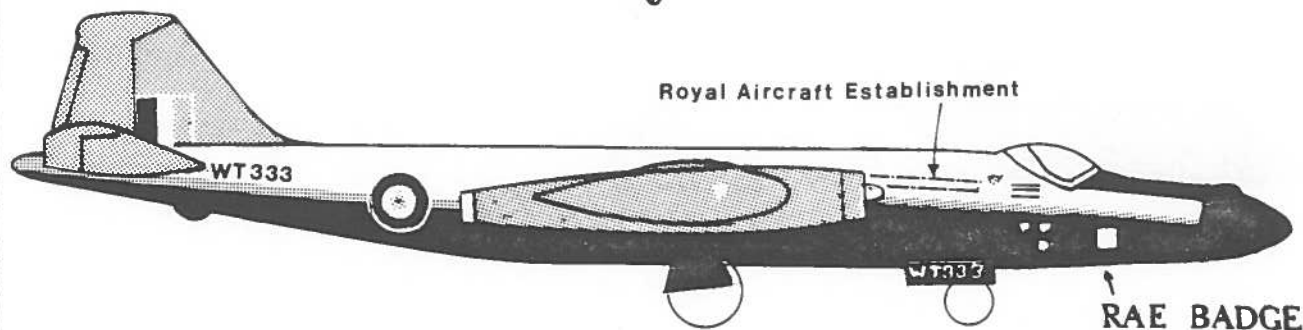
MARK OR USE

## BAC CANBERRA

RAE THURLIEGH  
BEDFORD



GREY BIRD  
YELLOW CROWN  
LEAVES BLUE  
SHIELD BLUE  
KEY YELLOW  
SCROLL GRAY



Royal Aircraft Establishment

RAE BADGE

■	BLACK
■	RED
■	WHITE
■	BLUE

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